JPRS 82985

2 March 1983

Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 263

FBIS FOREIGN BROADCAST INFORMATION SERVICE

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PROBLEMS BESET LANDSAT; GOVERNMENT EYES IMPROVEMENTS

Canberra THE AUSTRALIAN in English 15 Dec 82 p 2

[Article by Jane Ford]

[Text]

THE recession and the drought have claimed yet another victim – the Australian Landsat station.

Demands for satellite imagery from the station has dropped by more than 60 per cent in the past four months and a third of the staff has been retrenched.

This is in contrast to a year ago when the station could not cope with the overwhelming demand for imagery.

At one time, there was a 30-week backlog of orders, more staff had to be taken on and working hours extended from 40 to 160 hours a week.

The director of the station, Mr Don Gray, attributes the downturn to a combination of factors, including the recession, the drought, increased prices for imagery and poor quality data.

He said demand had fallen from an average of $48,850 a month in the first six months of the year to an average of only $17,660 a month in the past four months.

In October, revenue dropped as low as $13,000 for the month.

Initially, the staff thought the fall-off had been caused by the 2½-times increase in prices for satellite imagery which came into force in July after price rises imposed by the National Aeronautics and Space Administration in the United States.

However, it soon became clear other factors were involved. One was the increasingly poor data available in the Last three to four months from Landsat 3 as the satellite system failed.

A new Landsat 4 has been launched by NASA but the station cannot yet process imagery from it. Work is under way on $600,000 worth of improvements to allow the data to be used, but this is unlikely to be completed until May next year. Until then, Mr Gray can see little hope of an upturn in demand.

One major factor is the recession, particularly in the mining industry, which usually accounts for more than 50 per cent of demand. The industry has made it clear it is not interested in the present poor imagery and will not be prepared to expand demand until the station undergoes a substantial improvement.

It wants the Federal Government to fund the $6.5 million works so it can receive data not only from the multispectural scanner aboard Landsat 4 but also from the new thermatic mapper on the satellite which gives much greater resolution.

Prediction

The improvements are under consideration by the Government, which has made it clear it would like a substantial contribution from industry for the work.

However, industry in the form of Indusat, which represents Australian Landsat users, has made it equally clear it is unwilling to pay for the work.

The Department of Science and Technology is preparing a Cabinet submission asking for out-of-budget funding to pay for the work.

Mr Gray said another cause for the downturn in demand had been the drought, which had done away with much of the crop prediction work carried out by State agricultural departments using the satellite imagery.

CSO: 5500/7531

BROADCASTING OFFICIAL RAPS NATION'S STAND ON CABLE TV

Canberra THE WEEKEND AUSTRALIAN in English 11-12 Dec 82 p 2

[Article by Errol Simper]

[Text]

THE Australian community was approaching the introduction of cable television with the same "suspicion and mistrust" which prefaced the introduction of television itself, according to the chairman of the Australian Broadcasting Tribunal, Mr David Jones.

In a sharply-worded reply to criticism of the tribunal's report on cable television, Mr Jones said yesterday: "Comments then (prior to the introduction of television in September 1956) ranged from argument that the ABC should not be allowed to participate to actors worried about Australian content.

"There was comment from those who were so concerned about the potential influence of television with children that they recommended transmissions be broken for an hour every evening to allow mothers to put their children to bed without fuss.

"Comments included the feeling of one man that television was 'more dangerous than the atomic bomb' because of the effect it might have on society.

"Comment (on cable television) today ranges from argument over who should participate in the new technologies, concern that Australian content won't survive the advent of the new technologies, concern over children's programming and concern over the state of a society which is geared to electronic information.

"The point is: the central concerns haven't changed and the general attitude to new technologies is still one of suspicion and mistrust."

Addressing a Public Broadcasting Association of Australia communications seminar in Sydney, Mr Jones said the sooner Australia moved to adopt cable television the sooner it would "realise the net potential of social and economic benefits inherent in its development."

The tribunal's report on cable and subscription ("pay") television, tabled in Federal Parliament in August, has drawn widespread criticism from many organisations, including the Law Reform Commission, the Australian Consumers Association, the ABC, Actors Equity and the Australian Council of Social Services.

The organisations say the report abandons cable television to the commercial sector and that not enough safeguards as to local content, special-interest programming and standards have been set down in the report.

Mr Jones said yesterday the report had to a considerable extent been misinterpreted.

"There has been much public criticism of the tribunal's recommendations concerning the role of the public sector," he said. "I again stress that the tribunal has opted for a mixed economy approach.

Challenge

"The tribunal has been accused of protecting the rights of the existing broadcasters, contrary to the public interest. The tribunal believes that the route to the provision of the greatest number of services of the best quality is through the maintenance of an economically healthy and viable system."

Mr Jones said new communications technologies offered a challenge to all Australians — "a challenge we must accept and meet innovatively if we are to grow."

The report was also defended by a member of the tribunal, Mr Jim Wilkinson, who said public interest organisations had to realise there was a great demand in the community for increased entertainment and communications services.

"Of course there is a strong commercial motivation for a lot of people with a lot of money who would like to make a profit out of the establishment of cable reticulation systems in Australia," Mr Wilkinson said.

"But the game is only just starting. The recommendations surely do not set the background for utter commercial exploitation.

CSO: 5500/7531

BRIEFS

PUBLIC TV DELAY--Public television is in limbo. Held back by the Federal Government's failure to introduce the service in early 1981 (a licence still has not been granted), public television remains a dream which might or might not come true. Its beginnings were positive. Open Channel screened several programmes, using 0/28's signal, over two weekends in February this year. Response--gauged by questionnaires--was large and positive. People wanted more of the programmes many called "refreshingly informative" and "different from the rest of television." Public television's rapid advance--it hopes to concentrate on issues not looked at by commercial stations or the ABC--was halted. Its plans and predicament are discussed in a recently released compilation of the viewer's responses titled "Public Television in Melbourne, The Preview Broadcasts and Beyond." The report--prepared by a team led by Dr Peter White of La Trobe University Faculty of Education's media department--looks at the feasibility of public involvement in the project (and of future Government support) and at who watched the broadcasts and why. There will be more to public television than entertainment. Apart from the fact that 500 people have used Open Channel's training facilities, it is hoped that educational programmes--for both tertiary institutions and the public--will be available. [By Peter Wilmoth] [Excerpts] [Melbourne THE AGE in English 9 Dec 82 Green Guide p 10]

THIRD SATELLITE OPTION--Aussat, the government-sponsored body preparing this country's first domestic satellite system, will keep its options open for the launch of its third satellite. The first two satellites, scheduled for deployment late in 1985 or early 1986, have been committed for launch by the US space shuttle. The third, slotted to go up toward the end of the decade, may be launched by the European Ariane system. Aussat chief executive and general manager, Mr W.G. Gosewinckel, said the company was encouraging a competitive atmosphere between the two available launch systems. He said the price advantage of the shuttle system is expected to disappear in October-November 1985 when the US National Aeronautics and Space Administration (NASA) readjusts its pricing from a fixed fee to one based on a cost recovery basis. "This will lift the price of NASA's shuttle system by about 80 per cent and put it level with the Ariane system," he said yesterday after the tabling of Aussat's first annual report by the Minister for Communications, Mr Brown. Ariane has the advantage of having a launch site closer to the equator, a factor which could give a satellite

up to two years more life as less onboard fuel needed to be carried, he said. Mr Gosewinckel said the decision to go with NASA's shuttle was made before the Ariane crashed on its first commercial launch, taking down two satellites with it. [Text] [Canberra THE AUSTRALIAN in English 13 Dec 82 p 12]

CSO: 5500/7531

PLANNED EXPANDED USE OF SATELLITES REPORTED

Synchronous Communications

OW152332 Beijing Domestic Service in Mandarin 2230 GMT 15 Feb 83

[Text] According to a RENMIN RIBAO report, the first issue of this year's HANGTIAN [SPACE] FLIGHT MAGAZINE reveals that China will launch its first synchronous [tong bu] communications satellite this year with the approval of the International Telecommunications Union. The satellite will be positioned above the Equator at 70 degrees east longitude.

The main purposes of our country in launching this synchronous communications satellite are to gain experience and technical data in the launching and application of synchronous communications satellites and to conduct experiments in telephone, telegraph, radiophoto, radio broadcast and television transmissions.

Remote Sensing

OW150153 Beijing XINHUA Domestic Service in Chinese 0043 GMT 13 Feb 83

[By reporter Chi Maohua]

[Text] Taiyuan, 13 Feb (XINHUA)--China has received success in applying the ground satellite remote sensing technique for agricultural natural resource surveys.

Using the remote sensing technique in surveying natural resources requires less investment and can produce quicker results. Since 1980, with the support of the State Scientific and Technological Commission, the National Agricultural Zoning Committee has organized nearly 100 professional workers in surveying and mapping as well as in agricultural and forestry departments to give technical treatment to imported satellite pictures showing China's land conditions. Based on this they have worked out initial data in 10 major categories, including farmland, forest land, grassland, water-covered areas and land used for transportation facilities, for the whole country and for various provinces.

They have also made a satellite image [ying xiang 1758 0288] map on a scale of 1:2,000,000 showing the present situation of land utilization in our country. By giving technical treatment to ground satellite pictures, the agricultural zoning department of Shanxi Province has been able to explain a number of maps made on a scale of 1:250,000, which show the natural resources in the province for agricultural development covering 18 aspects such as agricultural geology, geomorphology, land structure, river system, forests, grassland, vegetation, agricultural weather types, soil, present situation of land utilization and comprehensive natural zoning. This has met the urgent needs of agricultural zoning work.

Practice has proved that remarkable economic benefits can be obtained by using satellite pictures in conducting natural resource surveys for agricultural purposes. In the past, using the conventional soil survey method, it took 50 people 7 years to complete the survey of approximately 40,000 square kilometers of soil in Shanxi. Now, with the satellite remote sensing technique, four people have been able to work out a soil-type map covering 156,000 square kilometers in the province in as short a period as a year or so.

CSO: 5500/4120

POST, TELECOMMUNICATIONS CONSTRUCTION IN SHANXI ACCELERATED

Taiyuan SHANXI RIBAO in Chinese 18 Oct 82 p 2

[Article by Zhang Shouxian [1728 7445 0341], party secretary of the Shanxi Post and Telecommunications Bureau: "Accelerate the Buildup of Post and Telecommunications"]

[Text] Since the Third Plenum of the 11th Party Congress, the party and the state have made many important decisions concerning the development of post and telecommunications and hastened their buildup. The situation in our province is the same as that throughout the nation. A welcomed change has occurred. In 3 years, the number of telephones throughout the province and the cities has increased by 174 lines, postal facilities increased by 442 square meters. The number of phone calls and letter service meeting the 20 quality evaluation standards established by the Ministry of Post and Telecommunications for phone and letter services stabilized at above 80 percent. In 1981, the entire province realized a profit of 4,004,000 yuan, and consecutive annual losses since the time of the Cultural Revolution have been turned around. New housing for workers covered 91,626 square meters. This fully shows the utmost correctness of the party line, principles and policies since the Third Plenum of the 11th Party Congress.

But, because of the 10 years of internal strife and mistakes in our work, there have been too many "debts." Our province's post and telecommunications services still constitute a "backward nerve," far from suiting the needs of national economic development, and in particular, they cannot catch up with the needs in the buildup of our province's coal energy base. The shortcomings are manifested first in the shortage of urban phones. Take Taiyuan and Datong as examples. A comparison between 1981 and 1949 shows that the population has increased six times but the number of telephones in the cities has increased only 1.17 times. The popularization rate is only 0.83 percent. There are more than 2,000 households still waiting to have a phone installed. The total industrial production value of Datong City in 1980 registered an increase of 239 times over that in 1949. The number of urban telephones increased by less than 2 times. Without comparing this with the world's advanced levels, and even compared to the whole nation, this is a low standard.

The second shortcoming is that long distance communications is crowded. There is a serious deficiency in the number of communications network outlets for

mining areas. In 1981, long distance telephone business showed an increase of 3.02 times over that in 1965 throughout the province while long distance telephone lines increased only 1.29 times. The users have to wait for a long time, and the percentage of numbers disconnected and the percentage of calls over the limit are high. Datong City now has 138 large and small coal mines, but there are only three post and telecommunications branch offices. The postal and telecommunications stations of the 14 uniformly equipped coal mines only provide postal service, not telecommunications services. Workers and family members who want to send a telegram or make a long distance phone call must travel several dozen li to and from the branch offices. Also, there are still 102 mining areas throughout the city that do not have telecommunications services. There are also deficient telecommunications facilities at the rest of the coal mining bases such as Fenxi, Huo County, Hangang, and Jincheng.

The facilities of postal services are limited, the speed of delivery is slow, communications equipment is backward, the quality of service is not high, business and management are poor. All of these problems have directly affected the communications of the party and the masses of people. How can we overcome these important factors that limit our nation's economic development? As we were seeking answers, Comrade Hu Yaobang reported to the 12th Party Congress and brought forth before the people of the whole nation the proposal to take the strengthening of the buildup of post and telecommunications in a big way as the glorious strategic goal to realize our nation's socialist modernization and as a key strategy to develop the national economy.

This is not only entirely necessary and entirely correct, but at the same time, it is a big encouragement and an education for every member on the post and telecommunications front. It has further strengthened our sense of glory and urgency to do post and telecommunications work well. We profoundly understand that every message we transmit is closely related to party affairs. Every telegram and every phone call are tied to the pulse of the socialist buildup of the motherland. Today, the 12th Party Congress has given us unlimited strength and courage.

Our general goal is to build a modern telecommunications network on a basic scale that utilizes multiple means, that has a large capacity, that uses wide frequency bands, that is automated, that has many uses, that has both analog and digital equipment, that combines peace time needs and war time needs throughout the province by the year 2000. Loading and unloading of mail, transportation of mail and internal processing must be mechanized. We must provide good quality public and special communications facilities for every sector of society and the national economy, and we must rapidly, accurately, safely and reliably transmit various types of messages. We must be farsighted while establishing ourselves in the present. In the next 3 years, we msut reorganize the 125 enterprises throughout the province well, implement the principle of reorganizing the key points first and then the general points, carry out reorganization in stages and in groups. This year and next year, we must first reorganize the municipal bureaus under provincial jurisdiction, bureaus in the seats of prefectures, central bureaus between industrial and mining areas and counties. The buildup of post and telecommunications must be included in the general plan

to develop Shanxi as an energy base and in urban development plans. We must fully develop the function of existing communications facilities. We must place the improvement of postal and telecommunications services and the improvement of quality of communications concretely in an important position in post and telecommunications work. We must educate workers to establish the ideology of "serving the people, being responsible to the users." We must take the degree of satisfying the needs in society as criteria to inspect our communications services. We must improve communications qulaity, firmly establish the viewpoint of "quality first," implement the principle of "speed, accuracy, safety, convenience" on an overall basis, and be the "foreward sentry" to propagate the spiritual civilization of socialism.

9296
CSO: 5500/4114

BRIEFS

ZHEJIANG UNDERSEA CABLE--Hangzhou, 19 Jan (XINHUA)--China's first 120-route undersea cable--the Zhoushan undersea cable project--was completed and officially put into use in Dinghai on 15 January. The undersea cable is part of a telecommunications project, which includes the laying of 13 undersea cables with a total length of over 500 kilometers, 7 power plants and other auxiliary projects. All the cables and carrier equipment used in the project were designed and manufactured in China. [Beijing XINHUA Domestic Service in Chinese 1447 GMT 19 Jan 83 OW]

'GUIZHOU RADIO' STEREO BROADCASTS--"So that listeners can enjoy the spring festival, the Guizhou people's broadcasting station will broadcast stereo programs on a trial basis from 10 February. The trial-broadcast time will be from 10-16 February and from 1700-1900 [0900-1100 GMT] every day." Everyone is welcome to listen to these stereo programs. Stereo broadcasts have developed relatively quickly in our country over recent years. At present, some provincial and city broadcasting stations in our country are broadcasting stereo programs. "After listening to the stereo programs, listeners are requested to write letters to the literary and art department of the Guizhou people's broadcasting station if they have any views or suggestions." [Summary from poor reception] [HK090753 Guiyang Guizhou Provincial Service in Mandarin 1100 GMT 7 Feb 83]

JILIN TRIAL FM BROADCAST--The FM stereo broadcast service which for years listeners have longed for will begin on a trial basis during the spring festival period. This FM stereo broadcast sounds so graceful and pleasant that the listeners will feel as if they are participating. It will be warmly received by the listeners. Our station has experimented with this stereo broadcast work since September last year. Through more than 3 month's hard work, this broadcast service has reached the standards for broadcasting. All of Changchun city will be able to receive this broadcast. The Jilin provincial people's broadcasting station will begin this broadcast service on a trial basis for 5 days from 13 to 17 February, that is from the first to the fifth days of the first month of the lunar calendar. It will be broadcasted twice daily and each time will last for 2 hours. The first transmission will be at 1100-1300 hours and the second transmission will be at 1600-1800. [Text] [SK070410 Changchun Jilin Provincial Service in Mandarin 1030 GMT 6 Feb 83]

CSO: 5500/4119

BRIEFS

NONG KHAI RADIO STATION--On 13 January Minister attached to prime minister's office Chan Manutham opened the Radio Thailand station in Nong Khai Province. The station has 10 kilowatt transmission power and broadcasts 14.5 hours daily. Its broadcast can be heard in the entire upper northeastern region of Thailand as well as in nearby countries. [BK190724 Bangkok Domestic Service in Thai 0530 GMT 13 Jan 83]

CSO: 5500/4333

MINISTER REVIEWS STATE OF COMMUNICATIONS SERVICES

Sofia IMPULS in Bulgarian 4 Jan 83 pp 1, 2

[Speech by Minister Pando Vanchev to the expanded ministry collegium in the adoption of the 1983 plan of the Communications Sector, held on 23 December 1982: "Let Us Upgrade the Efficiency and Quality of Our Activities Everywhere and In Everything!"]

[Text] Comrades:

We discussed the 1983 Communications Sector counterplan in a businesslike atmosphere. It is my view that it will be approved by the expanded collegium and it will become our daily concern, as has always been the case so far.

We are adopting our counterplan in the bright circumstances prevailing in our country. Despite the difficulties triggered by the complex international situation and the foreign economic difficulties experienced in this connection, Bulgaria is continuing to develop at a high pace. It is on this basis that the well-being of our people is improving rapidly.

The implementation of the party's December 1972 program brought about a fuller satisfaction of the needs of the population for goods and services, as a result of which the market is calm and balanced. Following the publication of the basic stipulations of the party's concept regarding a new Labor Code, the activeness of all labor collectives, including those in communications, increased considerably. These favorable circumstances which were developed in our country lead us to believe that in 1983 we shall achieve new and even greater and more significant successes.

Naturally, something more extensive is demanded of us who work in the field of communications, which will bring about not only the implementation of the counterplan but radical changes in the quality of communications services as well and will lay a firm foundation for a new policy in communications. The solution of such a global task demands a search for new ideas and concepts, the implementation of more daring plans, defining and applying more efficient management decisions, and so on. In a word, those of us gathered here and those who do not attend this meeting should reorganize their work in the spirit and stipulations of the theoretical works and practical approaches of Comrade Todor Zhivkov after the 12th BCP Congress. This is demanded of us and this is something we must achieve.

Allow me to discuss some results and make a few assessments on the state of communications and express a few thoughts and ideas regarding this reconstruction. The unified plan also defines our tasks, the tasks of the Ministry of Communications, for 1983. These tasks were defined in detail and substantiated by Comrade Nikola Krekmanski, for which reason I shall not discuss them.

Allow me, however, to indicate a few results and tasks which must be carried out and which are of decisive importance in communications.

I. The Overall Balance of Our Implementation of the 1982 Counterplan Is Positive

In 1982 as well the labor collectives in communications proved that they are successfully implementing the decisions of the 12th BCP Congress and that they stand in the leading ranks of the labor collectives in the country in the implementation of counterplans.

The ministry expects to fulfill its counterplan for mandatory indicators by 28-29 December 1982 as a whole.

We are also expecting all enterprises in the communications sectors and the Telekomplekt ISO [engineering economic organization] to carry out their annual counterplans.

The production capacities in communications have expanded: 81,750 new telephone sets were installed along with 21,500 telephone cable pairs, 2,708 telephone channels and 107 kilometers of cable communications; the International Telegraph Office was commissioned and completed.

The further development of AMTOG was continued as well as the extending of television and radio signals throughout the country. A trend of reducing unfinished construction is becoming apparent. The volume of idling productive capital has declined.

The growth rates of the net output of the Ministry of Communications outstripped the growth of wages by 4.26 percent in 1981-1982, which is a favorable development. Wages in the communications sector declined by 1.24 percent during the same period. We believe that this increase should have been somewhat higher and are taking the necessary measures to achieve this.

Communications continued to overfulfill their obligations in terms of the country's budget. We paid into the budget 553,000 leva more than planned and our net output totaled 2,106,000,000 leva above the plan.

The 57 auxiliary farms we set up are making a significant contribution to resolving problems of self-satisfaction with meat, fruits and vegetables.

Despite these successes, we were unable to resolve some problems or put an end to worsening trends in the work of individual communications units.

As you know, the gravest and most difficult problem is that of the quality of communications services, specifically in telephone communications. Telephone services are a steady target of criticism in the mass information media. The population is complaining as well.

Capital returns, determined through the net output indicator per 100 leva capital assets, has declined in recent years. It was 17.48 leva in the first 9 months of 1981; it declined to 17.34 leva for the same period in 1982. At the same time, the coefficient of suitability of productive capital has been steadily declining in recent years.

The renovation coefficient of productive capital has been worsening also: from 19.5 percent in 1974 it dropped to 10.8 percent in 1980. The same declining trend has been noted in the first years of the current five-year plan as well.

Such are the facts which deserve our common attention. They indicate the causes for the efficient development of communications and show the location of our internal reserves in this area.

II. Some Ripe Problems To Be Resolved in 1983

The communications counterplan which we are about to adopt is the third step in our five-year development on the path of intensification and intellectualization. As was the case during the first 2 years of the five-year plan, the 1983 counterplan ensures the further efficient development of communications. It is proper, like careful managers, before the new year begins, to define the most important and urgent problems to be resolved in 1983. Allow me to draw your attention to a few of them, which are topical and which, unless promptly resolved, will have a restraining influence on our development.

First. We must radically improve our work in the labor collectives in order to ensure the most active participation of every working person in communications. The purpose of our work with the labor collectives is to upgrade efficiency in all activities, everywhere and in all areas. Speaking of efficiency, I bear in mind not only to meet the mandatory and report indicators of the counterplan but also to ensure high social results to benefit our socialist society. That is why work with labor collectives is assuming primary importance for all of us.

The 12th BCP Congress approved the basic stipulation that the labor collective in our country is the master of the socialist property. One of our immediate tasks is to determine the rights and obligations of the labor collective as the master of productive capital and, more specifically, those of the primary labor collective, i.e., the labor unit which, metaphorically speaking, is the brick in the building of our production organization. How is this to be accomplished?

Obviously, the determining factor in this case will involve the productive capital which will be managed by the labor collective. Its rights and obligations will depend on what it will manage. Probably this stipulation will apply to all labor collectives, big or small, as well as to trusts.

In his "Basic Stipulations of the Party Concept of a New Labor Code," Comrade Todor Zhivkov said that the basic obligation of each individual labor collective is to preserve and increase the socialist property it manages.

To us this means that one of the most important obligations facing the labor collectives in communications is the efficient management of the capital assets placed at their disposal.

That is why the first of our most immediate tasks in 1983 is to determine the productive capital which will be assigned to the primary labor collectives for their management, the productive capital which will be assigned to the middle levels--the okrug communications management and autonomous enterprises and the assets to be managed by the Telekomplekt ISO economic organization and the ministry.

Let me emphasize that we shall encounter substantial difficulties in our practical approach to the implementation of this task. The problem is that because of the integral nature of the telephone and Telex circuits, the operation of some of the exchanges and long-distance cables is shared by the entire sector rather than managed by an individual labor collective. At the same time, the managing of this equipment will be necessarily in charge of individual labor collectives. In order for this to be accomplished we must find the means and, more specifically, to determine the normative base with the help of which we shall regulate the interrelationship among these labor collectives. Without this we would be unable to apply the brigade organization of labor and brigade cost-effectiveness as is required by the new economic approach and its mechanism.

This is a joint and urgent task facing all labor collectives, scientific research institutes in communications and ministry services. Its solution will require the development of respective task forces which will study and draft the resolution to be approved by the ministry's collegium.

Second. We need a clear, realistic and substantiated program for the development of the material and technical base of communications to the year 2000. A major effort was made to resolve this problem in 1982.

As everyone knows, in October we made a thorough study of the current condition in telephone communications. It revealed not only the precise condition of the material and technical facilities for telephone communications but also the shortcomings based on subjective factors, imperfections in the style and methods of management, insufficient skills, standards and discipline in labor collectives in communications, and so on.

As a result of the survey and brainstorming based on the prepared materials, several preliminary conclusions are possible:

1. We are not satisfied with the way the productive capital is managed and is efficiently and fully used. The reasons which have brought about this condition are due to the delays we allowed in the application of cost-effectiveness and the brigade organization of labor, or, more generally said, of the new economic approach and its mechanism.

We have not elaborated a fundamental norming base for the application of the new economic mechanism in the communications sector. By this I mean the standards and norms governing labor, material, energy and financial expenditures of individual labor collectives or performers. We have not resolved the problem of economic relations and reciprocal responsibilities among related production units. We have failed to resolve normatively the problem of the connection between the quality of communications services and wages, i.e., we have not found a way economically to combine the individual interests of communications workers with those of society in order to harmonize their efforts.

We have not resolved entirely the problem of developing new types of brigades which could be assigned existing productive capital. It is true that virtually all workers are in brigades as well as the administrative-managerial, scientific-technological and design personnel, whose work is directly and exclusively related to a given brigade or brigade team. This, however, is insufficient. We must eliminate formalism in defining the mandatory state tasks of the brigades and the formulation of the counterplan. The counterplan is not everywhere a project of the entire collective, the result of its activeness and creativity. We must improve the indicators on the basis of which we assign tasks to brigades and teams, particularly in terms of volume, for the "Rate Income" indicator currently used does not accurately reflect the amount of work done by the labor collective. The use of the "Level of Quality of Services and Service Standards" indicator of a brigade or team is applied formally, superficially and unsatisfactorily.

The basic weakness of the enterprises is that they have failed to apply brigade cost-effectiveness totally. The report states that 97 percent of the brigades operate on the basis of brigade cost accounting. However, this high figure has no factual support. For example, accountability has not been reorganized on the basis of the requirements of the brigade organization of labor and brigade cost-effectiveness. Without properly organized and accurate accountability on the activities of brigades and teams the new types of brigades cannot function and the wage funds cannot be totally related to the results of the activities of the collectives as mandated by party and government documents. The application of the economic approach and its mechanism must begin with the brigade and end with the new type of brigade.

2. The technical possibilities of a number of installations, including those of decisive importance in terms of the country's telephone system, have become virtually exhausted. As a result of this, steady disturbances occur, which are eliminated with difficulty and are quite costly not only to us but to the national economy. Efforts to modernize and reconstruct such systems yield insignificant quality results. Let us take as an example the switching equipment of the A-29 type in the overall telephone system in the country. In the course of operating such a system of telephone exchanges several hundred rationalization suggestions and dozens of scientific developments have been applied. As part of the overall telephone system in the country it is responsible for the low parameters of the work of the entire system. Although new subsystems with high technical and operational indicators are being included, the condition of the telephone system as a whole does not show the desired improvements.

A similar disparity will develop in telegraph communications as well. We completed an electronic telegraph exchange whereas the terminal systems were left in the electomechanical stage. In order to improve the efficient use of the new exchange we should replace the old teletypes with new electronic models.

We have charted a main course of modernization and reconstruction of the material and technical base of communications. No less than 75 percent of the new capital investments are channeled in that direction, which is yielding positive results. That is why, in the future as well, wherever expedient, we shall try to make maximal use of the existing equipment. This is correct, the more so since no country, regardless of how rich it may be, can afford the luxury to replace simultaneously the entire old equipment with new.

However, no one would forgive us if we failed to see that in a number of areas such possibilities have become exhausted, for which reason we must unquestionably but sensibly and gradually undertake to update some of the equipment with the type of equipment consistent with world standards of technical progress.

It seems to me that no one should be convinced of the need for such a course. This is one of the most important conclusions which we are drawing as a result of the brainstorming of the survey of telephone communications.

What are we doing on this subject?

We intend to begin talks with a number of firms for the installation of modern digital switching and carrying systems within our telephone grid at the very end of this five-year plan and will accelerate this process in the years to come. The Scientific Research Communications Institute proved that the highest results can be achieved with the installation of digital systems in the interurban network.

We shall take rapid measures to ensure the proportional development of all elements within the telephone system and to eliminate arising disproportions. The most advanced currently are the settlement systems while intersettlement systems have fallen substantially behind. This disproportion worsens the efficient work of the telephone circuits in the country, hinders dialing and substantially affects the quality of service. Such a disparity in development exists also in the organization of telephone exchanges within settlements and their cable circuits. It is obvious that the elimination of existing disproportions in the development of the material and technical base in communications is one of our most topical and complex problems.

We must complete the optimized variant of building electronic exchanges in Sofia territory, involving urban and interurban telephone facilities, using modern electronic exchanges. We must make a more decisive use of digital carrying and condensing systems--digital radio relays and optical cables.

Third. The technologies used in repairing and maintaining the existing material and technical base and the current organization of technological

processes have become obsolete and inconsistent with the new conditions which have developed as a result of the expanded scale of work and the application of more advanced technical systems. We are still paying dues to our obsolete concepts and are not working energetically and aggressively to develop a more efficient organization consistent with the new requirements for prompt and qualitative elimination of breakdowns. We are currently developing the organization of a new system for repairs and elimination of defects in the urban telephone network on the basis of concentration and specialization. For example, we have centralized dispatching and are concentrating mobile equipment and control-measuring apparatus and are specializing brigade teams for the rapid and qualitative elimination of breakdowns in the network. With the further application of electronic facilities in the exchanges possibilities will be created of the centralized elimination of breakdowns in the exchanges as well by replacing entire blocks or individual units.

At the same time we are building the material and technical base for a national dispatcher system for the operative control of activities in the entire communications sector. This will enable us not only to determine in terms of real time scales the overall condition of the communications system but will enable us to apply the same system in resolving a number of management problems.

Fourth. A new attitude must be developed toward the quality of communications services.

You know that the problem of the quality of communications services has always remained unresolved. Naturally, there are officials, including command personnel in the communications system who believe that no such problem exists and that everything here is in order.

I believe that it would be unnecessary to point out numerous cases with which you are well familiar in order to convince you that this problem exists and it is becoming aggravated with every passing year. Suffice it to point out that the condition of the quality of telephone services was questioned by Prof Nacho Nachev, the people's representative, and that this question, raised in the National Assembly at its Seventh Session, had to be answered. It was there, addressing the people's representatives, and on behalf of all of us, that I assumed the exceptionally difficult obligation of decisively improving the quality of telephone services. By assuming this responsibility I believed and still do that this is not exclusively a personal wish or the wish of the ministry's leadership. This is our common desire and a major social obligation.

I will not discuss the reason for which we have reached this condition. You are far more familiar with it than I am. What matters mainly now is how to resolve this situation.

Quality is our common task which begins with the minister and ends with the technician and the exchange operator. As to the ministry's leadership, it studied the overall condition of the development of telephone services. We are currently drawing the conclusions and are taking decisive measures

essentially related to the restructuring and updating of the existing material and technical base for telephone communications. This is necessary, for we cannot provide an overall solution to the problem of high quality with unsuitable and obsolete equipment.

The problem remains of operational activities, which is entirely in your hands and which directly determines the quality of telephone services with the current equipment. Furthermore, quality depends also on the sensible socialist management of productive capital, standards and ethics applied in population services by labor collectives, and so on. The labor collectives you head or represent owe something to our public in terms of quality. This must be realized by all of you and by all who come after you. Our common task is rapidly to change this situation as early as 1983. Possibilities in this respect were created following the publication of the "Basic Stipulations of the Party Concept of a New Labor Code," approved by the BCP Central Committee Plenum (29 and 30 November 1982).

As is always the case, Comrade Todor Zhivkov armed us with an innovative April spirit, both theoretically and practically, and with means to resolve this problem in communications as well. What is important now is for us to be on the level of the new requirements.

Fifth. The firm course we are taking to provide electronic facilities in communications on the basis of partial and gradual solutions demand of us once again to assess critically the role and place of the Scientific Research Communications Institute. I do not wish to convince you of the usefulness of such a reorganization. It is clear, however, that without the participation of science we would be unable to take even one step forward in technical progress. This is axiomatic.

What is the situation in this area and what do we wish and expect of the scientific workers?

A look at the 1983 institute's counterplan indicates that only three or four of its assignments have to do with problems related to updating productive capital over the next 20 years. Virtually all tasks are carried out by a very small number of personnel. This fact alone enables us to realize the way the institute is working on basic problems related to the development of communications. That is why the institute's plan must be quickly updated.

I do not wish to cast aspersions on collectives which work well. The scientific workers dealt properly with the installation of the International Telex Exchange as a result of several years of extensive study of problems related to mastering the new equipment and training cadres. We are also satisfied with the collective which developed the family of retranslators, produced at the PRPS in Ruse. The retranslators have gained not only domestic but international reputation. Other examples could be cited, for which we are grateful to these collectives. Obviously, however, changes must be made.

We know that the application of cost-effectiveness and the brigade organization of labor in the communications sector is being delayed also as a

result of the lack of developed scientific standards governing outlays of materials, energy and labor. Without them the new economic mechanism cannot reach the level of the primary production unit or the individual working person. Without such a normative base we cannot assess individual and collective contributions. We also know that automation in communications steadily expands the integration among the various units. The work of the individual collectives is becoming increasingly interrelated and interdependent.

Here again it is precisely science that should seek and find a standardizing base for integration the work, combined with the decentralized management of productive capital. The passive attitude taken by the Scientific Research Communications Institute in terms of such problems of vital importance to us concerns us quite seriously. Obviously, the Scientific Research Communications Institute itself requires a substantial reorganization if it is to meet the new requirements. Its reorganization must be undertaken immediately. In a way we are providing it with its initiatial impetus from the outside, by indicating it what we want. This external impetus, however, must be combined with internal impeti. This is the main thing! The entire scientific potential must be energized and given an incentive. We must offer it these possibilities, without which no reorganization would result. The rest is up to it.

Isproekt, our planning and design institute, needs a similar impetus. The time has come for this institute to find its position in resolving problems of technical progress in communications. From an institute "for orders" it must be converted into an instrument for the accelerated implementation of technical progress. This must take place and we must accomplish it.

Comrades:

As we define the general features of the reorganization we must take into consideration whether it is possible and how to accomplish it. I have touched upon merely one part of the problems which we must resolve and which stem from the condition in which we find ourselves. We can describe them as topical, the result, so to say, of our internal development. This is accurate, for only he who can see properly the way he develops can also properly earmark his development in the future. However, we would seriously err if we were to define immediate and longer-range problems exclusively on the basis of our own condition.

Technical progress is developing in the world at a tempestuous pace, particularly in the field of communications. It is on this basis that not only individual systems change but global changes are made in the material and technical base of communications, revolutionary in nature. That is why, as we define the strategy of our development, for up to the year 2000, for example, we should know the direction followed by the world in the field of communications.

Some specialists believe that to formulate a forecast in the field of communications is an "insanely daring" task, bearing in mind the great dynamics in the development of electronics. Naturally, I neither will nor can

formulate a forecast in this field. According to the specialists, however, during the next 25 years (which is not such a long time) major achievements are expected in the field of fiberoptics, artificial satellites, superconductors and systems operating in the infrared range.

As a result of these achievements, extensive changes are expected to take place in communications systems and networks. A single communications channel could be used to transmit simultaneously a tremendous number of digital data, television images and telephone conversations. For example, replacing the existing metal cables with optical ones could increase their handling capacity by a factor of 1,000. The mass dissemination of broad-band communications networks and systems is expected to take place by the end of our century. This will be the base for the comprehensive application of a new system of a number of new communications services such as videotelephones, electronic mail, long-distance access to automated bases and data banks (electronic libraries), long-distance computation of taxes, and so on. The application of long-distance optical apparatus for the transmission of document facsimiles, and so on, will be increased substantially.

I have described here in their general lines some developments for the immediate future, followed by the advanced countries in order to enable us to assess more clearly our development and indicate the distance separating us from them so that we may begin to catch up more rapidly.

We neither can allow nor will anyone to tolerate a careless existence on our part, regardless of the future. Bulgaria is steadfastly and decisively marching toward the leading ranks of the developed countries. This is not a mere wish but a reality which our development has confirmed a thousand times. That is why in the field of communications as well we need more than ever before a clear perspective for our development in order to be able to select and find the best ways through which to achieve it.

Uncertainty is paid for in levas and dollars, lost time and missed opportunities. The sooner we realize that in the field of long-term planning we are wondering and being confused, the better. Once we have understood it, however, the consequences would be difficult and bitter for many among us.

That is why we must undertake a thorough elaboration of a long-term, clear and realistic plan for our development over the forthcoming five-year plans and through the year 2000. The final objective of this plan would be to catch up with the advanced European countries in the field of communications. In order to achieve lasting results, the Scientific Research Communications Institute should set up a very strong team which should involve specialists from other technological and scientific areas, noted foreign consultants, and so on. We must know and be certain that each step we take in our development is a step forward rather than backward or sideways. I see the role of such a unit as a compass in our navigation along the main lines of technical progress in communications.

When we speak of future developments we must not forget that it is achieved with highly skilled people, who are not only willing but able to promote such

development. At this point, for the umpteenth time, we must face again the question of cadres.

So far we have dealt with the problem of executive cadres: switchboard operators, linemen, installation workers, technicians, and so on. This is as it should be. In the future as well we shall be training cadres and resolving such problems. This is life. We shall deal with these cadres as well. However, has the time not come to try to draw a balance of what we have accomplished to enhance the intellectual and skill standards of the cadres whose obligation is to promote our progress, those who are in charge of management or guidance of labor collectives?

Comrade Todor Zhivkov brilliantly substantiated the role and place of the labor collective in the current stage of our socialist development in the "Basic Stipulations of the Party Concept of a New Labor Code."

In the spirit of its theoretical development, allow me to emphasize that each labor collective needs a highly competent and intellectually superior management. In no case can we tolerate the employment of cadres in economic management, who have not changed in the course of many years and who have even forgotten many things they used to know, thus turning into ordinary practical workers. That is also why we come across a great deal of routine, stagnation, callousness, bureaucratism and passiveness in our work.

It is our common duty to undertake very seriously the solution of problems related to cadre training and qualification at all economic management levels. Without the solution of this problem we could never even mention the possibility of enhancing the quality of management to a much higher intellectual level.

How is this to be accomplished?

These problems were developed by the BCP Central Committee and the Council of Ministers. The government also created the necessary material and technical base. We have our own base as well. We have cadres to train other cadres. All of this is available. Obviously, the cadre problem must be considered in its entirety and most extensively during the very first half of 1983.

I use this opportunity to turn to the party secretaries and chairmen of the OPKS and the Komsomol workers attending the expanded collegium meeting, to ask them, using their specific party-political and organizational ways and means, to contribute to the implementation of Comrade Todor Zhivkov's new theoretical developments and practical approaches in the field of communications.

Comrades:

Allow me to report to you that communications successfully met its plan for the first 2 years of the five-year plan and in honor of the 60th anniversary of the founding of the USSR. By expressing my confidence that the 1983 plan will be fulfilled as well, I believe that this is possible only if we live in

peace, something which is guaranteed to us by the socialist comity headed by the great Soviet Union.

I am equally unable to conceive of the development of Bulgarian communications without the all-round close and fraternal aid we are receiving from the Soviet Union. The longer such cooperation becomes the more our gratitude toward the Soviet Union and its communist party grows, and the brighter becomes our love for the Soviet person who left dozens of millions of his fellow citizens along the hard roads of history so that mankind can exist and we can live in peace, so that you and I can exist and be what we are today.

No words would suffice to express what personally touches me as it touches all of you. Allow me, therefore, to cite an excerpt from the speech delivered by Comrade Todor Zhivkov at the ceremonious meeting of CPSU Central Committee and RSFSR Supreme Soviet on the occasion of the 60th anniversary of the founding of the USSR: "For 6 decades the Soviet Union has marched in the lead of progressive mankind. It is the homeland of the new human civilization. It is the nucleus around which the new world is crystallizing.

"During these alarming times, when imperialist reaction is openly preparing a 'crusade' against the nations, the Soviet Union remains the main bulwark of global peace, the main guarantor not only of progress but of the very existence of mankind."

No single Bulgarian person, no single Bulgarian heart and soul can fail to be proud of and admire the words of Comrade Todor Zhivkov, BCP Central Committee general secretary and State Council Chairman, delivered at the ceremonious meeting in Moscow on the occasion of the 60th anniversary of the founding of the Soviet Union.

That is why we are joyful and happy that with his speech Comrade Todor Zhivkov once again warmed up our hearts and once again gave the nation the strength to accomplish great deeds under the leadership of the Bulgarian Communist Party.

In a few days we shall be welcoming the new year 1983 with a feeling of legitimate pride in having successfully implemented our 1982 counterplan. All of you here in this hall and the dozens of thousands of workers in communications who are not here have contributed to this accomplishment.

As their representatives, give them our thanks for their dedicated and highly noble efforts!

And to you and your families, have a happy New Year!

To persistent work, comrades!

5003
CSO: 5500/3008

NEW TELEVISION CHANNEL BEGINS EXPERIMENTAL TELECASTS

Sofia IMPULS in Bulgarian 28 Dec 82 p 1

[Article by Nikolay Cheshmedzhiev: "Television Signals Will Be Received From Vitosha"]

[Text] The construction and installation workers of the complex radio and television center at the Kopitoto site on Vitosha kept their word. Despite the incredibly difficult conditions, the shape of the building is already visible and the first signal from Vitosha will be received on the eve of the New Year--experimental, naturally. By far not everything has been completed but the installation of a low power system will enable the specialists to put to a practical test many of their theoretical studies related to the high quality retranslation of a television signal.

Let us recall some of the details: the complex radio-television center under construction will be of a one-of-a-kind nature architecturally and technologically. The new television tower in the capital will resemble the structures on [word illegible] Square and will stand out superbly against the Vitosha background. The only other television towers which could boast of such specific beauty are those of Amsterdam and Vienna. The architectural design is the work of the design group at the Isproekt Engineering Design Enterprise, headed by architect Lyuben Popdonev, engineer Ivan Yaktakhtov and engineer Violeta Traykova. The center will have the latest equipment. It will enable us to provide full qualitative service to the population of Sofia and Pernik and Sofia and Pernik okrugs--three color television channels (increasing to five in the future), and five ultra-high frequency radio channels three of which will be in stereo. Automatic radio relay communications will be established with mobile sites and radio relay equipment for the transmission of radio and television programs and automating long-distance telephone communications.

Therefore, thanks to the dedicated work of the personnel of the Construction Troops, we can already experimentally televise signals.

"During the night of the New Year," we were told by engineer Ivan Gavrailov, chief specialist at the Ministry of Communications, "we shall be broadcasting from Vitosha a second Bulgarian television program on channel 29, which will continue to be used in the future. This telecasting will be duplicated on a parallel basis with the regular second channel program. We are conducting this experiment for our own testing purposes but the citizens as well should

know of it and become familiar with the channel change. Another technical feature is that channel 29 will be received only by the new television sets which will have a built-in addition for a decimetric range. Additional installations will be required for the older sets and, naturally, a special antenna will be required."

The explanation provided by engineer Ivan Gavrailov reminds us that the subunits of the Ministry of Machine Building and Electronics should undertake promptly the production of attachments and antennae while the trade organizations must be delivered to the market promptly. There is time to accomplish this but we should not wait until the very last minute. Until then, the work of the new television tower will be tested experimentally. It is the view of the specialists that the equipment, which was produced by the Scientific Research Communications Institute and the Industrial Repairs Enterprise in Ruse is up to date and will meet the necessary requirements.

5003
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SATELLITE COMMUNICATIONS INTERKOSMOS DESCRIBED

Prague TELEKOMUNIKACE in Slovak No 12, 1982 pp 177-178

[Article by Eng Frantisek Stranak, CSc, Research Institute of Communications: "Satellite Communications Interkosmos"]

[Text] Key application of satellite communications is constituted at the present time by fixed satellite service and, in the near future, in satellite broadcasting service. Fixed satellite communication service uses for the time being primarily the 4 GHz [gigahertz]/6 GHz frequency bands (4 GHz on ascending path, 6 GHz on descending path). However, the 4 and 6 GHz bands are also very intensively used in fixed ground service using radio relay systems. This involves primarily radio relay communications of the first order. Problems relevant to the coexistence of satellite and radio relay communications are cropping up in these bands. Further development of satellite communications calls for a transition to higher frequency bands. This involves primarily the (11-12) GHz/14 GHz frequency bands and 20 GHz/30 GHz allocated by the Radio Communication Rules. Nevertheless, different laws of radiowave propagation apply at higher frequencies than in the 4 and 6 GHz bands. This involves primarily absorption of radio waves caused by hydrometeors (rain, snow, hail, fog and clouds). In addition, there is the occurrence of selective absorptions (at the 21 GHz frequency, absorption is caused by uncondensated water vapors, at 60 GHz by molecular oxygen). Knowledge of the laws of radiowave propagation in frequency bands above 10 GHz is the prerequisite for successful planning and design of new satellite systems. Transition to higher frequency bands brings with it also the need to master the technology of high-frequency circuits for those bands. Mastering of the problems of higher frequency bands and their utilization in satellite communications are also of importance from the viewpoint of effective utilization of the geostationary path (there is not much room left in the 4 GHz/6 GHz frequency bands for accommodating geostationary satellites of new satellite systems). It will also become reflected in future development of the Intersputnik system which currently uses the 4 GHz/6 GHz frequency bands, and it is also of importance from the viewpoint of development of satellite broadcasting service in the 12 GHz band. Due to the significance of problems pertaining to higher frequency bands and the above-mentioned needs, efforts are underway in the area of satellite communications, as part of the Interkosmos program, to acquire the requisite knowledge pertaining to new frequency bands and implementation of satellite communication systems in the

10 to 30 GHz bands. A special experimental program has been organized as part of these efforts.

Characteristics of Experimental Program and Experimental System

Some basic data regarding the experimental program are contained in F. Stranek's article, "Czechoslovak Terrestrial Station," TELEKOMUNIKACE 7/1981 pp 98-101. For the sake of completeness and continuity they are once more outlined here together with additional data characterizing the experimental system.

The objectives of the experimental program are:

--research of radiowave propagation in new frequency bands on a satellite-Earth link (bands 11-12 GHz, potentially 20 GHz) and Earth-satellite (in the 14 GHz band, potentially in the 30 GHz band);

--experimental research into the possibilities and specific peculiarities of transmission of telephonic, television and digital signals by satellite communications in new frequency bands;

--establishment of an instrumentation base for viable satellite systems with a high transmission capacity and high resistance against interferences;

--establishment of an instrumentation base for satellite television broadcasting systems in the 12 GHz band.

Pursuit and attainment of the thus-formulated objectives is to be promoted by a corresponding experimental system. This experimental system includes:

--the space sector;

--the ground sector formed by the international metering polygon in the USSR and national metering polygons on the territory of countries participating in the experimental program.

The space sector is formed by geostationary satellites Luch 1 and Luch 2 implemented by the USSR with reception in the 14 GHz band and transmission in the 11 GHz band. The ground sector will be represented on metering polygons by first- and second-class ground stations, transmission in the 14 GHz band and reception in the 11 GHz band. Typically terrestrial equipment will also be installed on metering polygons. It involves terrestrial measuring routes for the study of radiowave propagation in the 11 GHz, 20 GHz and 30 GHz frequency bands. It will also involve installation of radiometers for measuring the noise temperature of the atmosphere, from which it is possible to derive atmospheric absorption. The metering polygons will be further equipped with meteorological instruments and devices for measuring rain intensity.

The transponders of the Luch 1 and Luch 2 satellites are intended for retranslation of signals coming from ground stations of the experimental system. Stations of the first class fulfill in the system the function of a

base station which transmits to the satellite television signals, measuring signals for study of radiowave propagation and maintains telephone communication with other ground stations of the experimental system. Second-class stations come to two variants. Second-class stations of the first variant will have the capability for limited-channel telephone communication with first-class stations as well as for reception of television and measuring signals. Second-class stations of the second variant will only have the capability for receiving television and measuring signals. Terrestrial measuring routes are intended for studying the conditions of radiowave propagation in the 11 GHz, 20 GHz and 30 GHz bands with the objective of comparing these conditions with those for propagation on the satellite route in the 11 GHz band and predicting signal attenuation on the satellite-Earth route in the 20 GHz and 30 GHz bands on the basis of that comparison.

Selected basic data are presented about the subsystems of the experimental system.

Luch 1 and Luch 2 Satellites

--Position of satellite Luch 1 on geostationary path: 14 degrees west longitude.

--Position of satellite Luch 2 on geostationary path: 53 degrees east longitude.

--Coordinates of Luch 1 target points: 47 degrees north latitude, 38 degrees east longitude.

--Coordinates of Luch 2 target points: 50 degrees north latitude, 33 degrees east longitude.

--Effective isotropically radiated power: 39.8 dBW [decibelwatts]

--G/T (quality factor of the satellite's reception signal): -12.2 dB/K [decibel/Kelvin]

--Polarization of reception: circular counterclockwise

--Polarization of transmission: circular clockwise

--Number of retranslator stems: one

--Bandwidth of stem: 34 megahertz

First-class Ground Station

--Receiver bandwidth: 250 MHz [megahertz]

--Bandwidth of stem: 34 MHz

--G/T: 36.3 dB/K

--Effective isotropically radiated power: 92 dBW

--Polarization of reception: circular clockwise

--Polarization of transmission: circular counterclockwise

--Antenna gain (diameter 12 meters)
  transmission: 63.3 dB
  reception: 62.2 dB

--Transmitter output: 2.4 KW [kilowatts]

--Noise temperature of the receiving system: 250 K [Kelvins]

Second-class Ground Station, First Variant

--Antenna gain (diameter 3 meters)
  transmission: 51.3 dB
  reception: 49.3 dB

--G/T: 23 dB/K

--Effective isotropically radiated power: 71 dBW

--Transmitter output: 200 W

--Noise temperature of the receiving system: 250 K

Terrestrial Measuring Routes	11 GHz	20 GHz	30 GHz
--Transmitter output	10 mW [milliwatts]	10 mW	10 mW
--Transmission antenna gain	37 dB	39 dB	41 dB
--Polarization	circular clockwise	circular clockwise	circular clockwise
--Sector length	10 km	(7-5) km	5 km
--Reception antenna gain	37 dB	39 dB	41 dB
--Receiver bandwidth	2 MHz	2 MHz	2 MHz
--Signal-to-noise ratio at receiver input	> 3 dB	> 3 dB	> 3 dB

Metering Polygons and Program of Experiments

Experiments will be organized from the international metering polygon. This polygon is being established in the USSR and some of the countries participating in the experiment will contribute some of its technological equipment. The CSSR contributed to establishment of the international metering polygon

by having developed for the polygon a second-class ground station of the second variant. The latter's specifications were formulated by the Research Institute of Communications on the basis of the experimental program parameters so as to make the station usable within the experimental program in experiments with transmission of television signals and in the study of radiowaves propagation in the 11 GHz band in the satellite-Earth sector. The radioengineering and technological functional components of the station were made in TESLA's Research Institute for Communications Technology on the basis of specifications provided by the Research Institute of Communications. Its implementation was also participated in by other organizations in the CSSR. Details about the Czechoslovak second-class ground station appear in the article cited earlier. As a supplement to the information contained therein it ought to be pointed out that mechanical and electrical assembly of the station was carried out at the international metering polygon in the course of June 1981 under cooperation of personnel from the Research Institute of Communications, Tesla's Research Institute of Communications Technology and USSR specialists.

On the basis of experimental operation of the station and measurement of transmission parameters and electrical characteristics of the station, it was determined that the measured parameters of the station do not differ from the values obtained in the CSSR, that they correspond to the technical specifications for a second-class ground station of the second variant, that the station is well designed, is characterized by good workmanship, has good operational characteristics and is simple to operate. Reliable functioning of the station's key components was also subjected to evaluation.

Installation of the Czechoslovak ground station on the international metering polygon is an example of successful cooperation among a number of institutions in the CSSR (the communications sector, Czechoslovak industry, the Czechoslovak Academy of Sciences, institutions of higher learning) and good international cooperation between the ministries of communications of the CSSR and the USSR.

The concept of national metering polygons in countries participating in the experimental program, among them the CSSR, is derived from the concept of the experimental system. Participating countries equip their national metering polygons according to their possibilities.

The experimental program will be launched in the third quarter of 1982 and will continue for several years. Subsequently are enumerated the actual experimental operations planned for the period following launching of the experimental program. All experiments will be conducted on the international metering polygon and some of them can also be conducted simultaneously at national metering polygons. It involves the following experimental operations:

--experimental study of radiowave attenuation on a satellite link in the 11 GHz band;

--experimental study of radiowave attenuation on ground connections in the 11 GHz, 20 GHz and 30 GHz frequency bands;

--measuring of rain intensity;

--measuring the noise temperature of the atmosphere;

--experimental study of television signal transmission on a satellite link in the 11 GHz/14 GHz band;

--experimental study of telephone signal transmission on satellite link in the 11 GHz/14 GHz band;

--tests of equipment for digital transmission of television signals on a satellite link;

--tests of equipment for transmission of audio signals in the television beam;

--measurement of cross-polarization on ground links;

--measurement of radiowave attenuation in the 20 GHz and 30 GHz frequency bands.

Conclusion

The international Interkosmos experimental program in the area of satellite communications will lead in its consequences to obtaining documentation for further development and implementation of new services realized by means of microwave radio communication systems in higher frequency bands, both satellite and terrestrial. This documentation will be obtained on the basis of experiments conducted at the international metering polygon as well as at national metering polygons and they will be made available for use by all countries participating in the experiment.

The envisioned results in the area of radiowave propagation can be specifically summarized as follows:

--attenuation statistic in the 11 GHz band on satellite-Earth link;

--attenuation statistic in the 11 GHz, 20 GHz and 30 GHz bands in ground communications;

--mutual relation between attenuation statistic on ground communications and on the satellite-Earth link;

--mutual relation between attentuation statistic and rain intensity in terminal points of these links;

--potential for extrapolation from ground links to satellite links.

In the Area of Transmission of Information in Satellite Communications 11 GHz/14 GHz:

--information regarding the quality and problems attendant to transmission of television signals;

--information regarding the quality and problems attendant to transmission of telephone calls through various methods of transmission;

--experience with transmission of digital television signals;

--experience with transmission of digital audio signals;

--experience with linkage of satellite and ground communications.

In the Area of Satellite Systems Technology in the 11 GHz/14 GHz Band:

--verification of technology of the space sector;

--verification of technology of the subsystems in the ground sector.

8204
CSO: 5500/3007

CABLE, WIRELESS COOL TO SATELLITE COMMUNICATIONS PROPOSAL

Hamilton THE ROYAL GAZETTE in English 24 Jan 83 p 12

[Text]

The Premier's prediction that Bermuda could become a focal point for international satellite communications has received a cool reception from Cable and Wireless.

General Manager Mr. Harry Saunter said the idea did not seem very feasible and pointed out that the "hi-tech" future which the Hon. John Swan said was only five years away was already here.

Mr. Saunter stressed that he did not wish to appear critical of Mr. Swan's comments, made in a speech to the Bermuda Personnel Association last Wednesday, but said he would like to put the record straight.

The giant Cable and Wireless was not consulted about the proposals which included the setting up of a "free telecommunications zone", possibly at Dockyard.

"Mr. Swan suggests business would be transformed by instant access to outside data banks, but this has been available in Bermuda for the last 2½ years and is being used by businesses," said Mr. Saunter.

"On the one hand we have got services which are being referred to as being something of the future, but are already in existence and on the other hand we have relaying satellites which don't seem to be feasible.

"We have not been consulted about these ideas which is why I feel some of them do not seem strictly appropriate. This requires a proper look to see what it is all about."

Cable and Wireless has exclusive rights to provide communications services to Bermuda, the last of which expires in 1994. The local operation is developing further with the erection of a 90-foot high satellite dish costing around $18 million which should be completed by the end of the year.

But Mr. Saunter said he was not concerned about competition and added confidently: "If it was set up as a separate entity we would be ready for that. I am sure we could run it off the map quite easily. We can cope with competition of any sort."

He added: "I would not be critical of Mr. Swan because I do not think this report is anything to go on. I think he is probably just pushing out an idea on the sort of thing which might happen.

"I agree wholeheartedly with the Premier that we must get into a hi-tech future. I don't agree it is five years away. It is already here and happening."

CSO: 5500/7529

NEW RADIO, TELEVISION REGULATIONS ANNOUNCED

PA132023 Bogota EL TIEMPO in Spanish 3 Feb 83 p 2-A

[Text] In accordance with a new decree approved today on administrative contracting, from now on all concessions for radio and television broadcasting services will be put up for public bidding.

This new policy will put an end to the system of direct contracting, which has resulted in the proliferation of stations throughout the country, without taking into account if they are really necessary. It will also put an end to arbitrary authorization of newscasts and television opinion program by government officials.

Television Changes

In addition, the new regulations establish that no television program should be on the air for more than 18 hours or less than 4 hours a week.

It was also established that contracts with subscribers will be signed for 4 years. This decree, however, does not apply to contracts to be signed this year, which will last only from 1 January 1984 to 31 December 1986. President Belisario Betancur and Communications Minister Bernardo Ramirez asked that this provisional measure be adopted in order not to impose a preestablished situation on the new administration to be installed on 7 August 1986. The new statute on administrative contracts contains strict regulations that must be obeyed by those who wish to be included in the register of applicants for national radio and television institute contracts.

Toward a New Television System

Regulations on television will complement a broad agreement that the government has been seeking among political parties and other important sectors in order to rid this medium of influences that television viewers have protested against for quite some time.

New System for Radio Stations

On the subject of radio, the decree states that when there is bidding for the opening of a radio station in one of the municipalities of the country, if parties are on an equal footing those who are not holders of previous concessions in the same region will be given preference.

Home Education

In radio broadcasting contracts, the government will reserve at least 2 hours a day of regular programming for home education programs.

These and other rules that completely modify the signing of contracts for telecommunications services in Colombia are outlined in Special Decree 222, issued by the government based on the power granted by the national congress with Law 19 of 1982. The new ordinance cancels Decree 150 of 1976 and related regulations.

CSO: 5500/2034

BRIEFS

RADIO COMMUNICATIONS AGREEMENT--An agreement was signed by the National Telecommunications Institute [INTEL] and the International Telecommunications Union [ITU], which will make it possible for INTEL to communicate with ships worldwide that are interested in contacting any part of Panamanian territory by means of a mobile radio communications system known as a coastal station. The agreement was signed by Govefnment Minister Justo Fidel Palacios and ITU Secretary General Richard E. Butler. [PA041607 Panama City CRITICA in Spanish 28 Jan 83 pp 1, 24]

CSO: 5500/2032

BRIEFS

NEW TELEPHONE SERVICE--KINGSTOWN, St. Vincent, Thursday, (CANA)--Prime Minister Milton Cato has made the first telephone call to the Grenadines island of Cannouan, 34 miles south of here, to initiate telephone links between the main island St. Vincent and the 2.9 square mile island, part of the state of St. Vincent and the Grenadines. Mr. Cato spoke from his office in Kingstown to constable Conrad Stewart at the Cannouan police station where the public telephone booth is located. Officials of Cable and Wireless, operators of the state's internal and external telecommunication services, said the unit on Cannouan is powered by a battery, charged by a small generatory. It now allows direct dialling between Cannouan and the Kingstown and Arnos Vale areas in the island of St. Vincent. However, calls to different areas of St. Vincent, the other Grenadine islands, as well as to numbers overseas can be obtained only with the assistance of the "overseas operator" who must also help people wishing to reach the Cannouan number. Manager of Cable and Wireless here, Charles Antrobus, said there had been several applications for the service from private subscribers on Cannouan, where more than 200 people live. [Bridgetown ADVOCATE-NEWS in English 24 Dec 82 p 3]

CSO: 5500/7528

TELCO LISTS PROBLEMS, ACHIEVEMENTS IN RATE-INCREASE BID

Port-of-Spain TRINIDAD GUARDIAN in English 25 Jan 83 p 1

[Article by Clevon Raphael]

[Text] Increased rates being sought by the Trinidad and Tobago Telephone Company (Telco) will produce $104.6 million in additional revenue for the State-owned company.

This has been gleaned in the statement of case delivered to the Public Utilities Commission (PUC) by Telco, which is arguing that the enhanced revenue would enable it to achieve a return which will amount to 2.25 times the annual interest payable as required by the Telephone Act.

Hearing of the application which is being opposed by several individuals and groups starts before a tribunal of the PUC at 2 p.m. tomorrow.

In the document, Telco is contending that:

--The revenue derived from the present rates is insufficient to enable the company to achieve the minimum return provided for by the Act;

--The proposed rates will produce the required additional revenue to enable it to earn such return; and

--That the PUC should act accordingly.

According to the document which has been circulated to all objectors, Telco suffered an operating loss of $72.2 million in the 1981 fiscal year and as such earned no return.

Loans outstanding at December 31, 1981, amounted to $174.9 million and interest payable on the loans during that year was $15.9 million.

"As a result of the negative return, interest on outstanding loans was not covered."

Improvements

In order to achieve a return which would amount to 2.25 times interest payable as provided for in the Telephone Act, operating revenues must therefore be increased by $104.6 million.

It is expected that $75.1 million will be derived from existing subscribers at the adjusted rates; $29.5 million from the anticipated growth in the subscriber base at the adjusted rates of which $2.9 million is derived from increased overseas revenue.

In its case, Telco is saying that since 1974 service improvements were realised throughout the network.

These improvements included replacement and expansion of exchange service at Nelson, Couva, Piarco, Marabella, Thompson (San Fernando); Chaguanas, Maraval, San Juan, Arima, Diego Martin and St. Augustine.

Inter-office trunk facilities, local cable network and maintenance performance were also identified in the Telco document.

Identifying some of the "major steps" taken to improve its maintenance performance, Telco referred to:

--Establishment of the Care Department to handle recurring or persisting faults;

--Revised procedures for the processing of customer complaints and a centralised system for the despatch and control of repair men;

--Reduction in the size of repair crews to increase productivity;

--Acquisition of more advanced testing equipment on which technicians are continually being trained;

--Retraining of technicians in standard construction techniques, fault diagnosis, fault location and repair and in preventive maintenance; and

--Increased physical protection of underground cable plant to reduce the risk of accidental disruption of services and to facilitate repairs.

'Message Rate'

Telco says that a subscriber now pays a basic monthly rental which varied according to the installed capacity of his exchange area; this entitles him/her to make unlimited calls within his exchange area without further charge.

The company is seeking to change the rate structure by seeking the introduction of a charge per call called a "message rate" without time limit of 18 cents for inter-exchange calls in all automatic exchanges.

CSO: 5500/7530

PROJECT DIRECTOR INTERVIEWED ON INSAT PROBLEMS

New Delhi PATRIOT in English 15 Jan 83 p 5

[Text]

BANGALORE, Jan 14 (UNI) —Necessary corrective measures have been carried out on Indian National Satellite (INSAT-1B) to avert the anomalies that brought down its predecessor INSAT-1A.

In an exclusive interview to UNI, INSAT Project Director P P Kale said "the problems faced by INSAT-1A have been identified to the extent possible and rectified in INSAT-1B."

INSAT-1A, the first operational satellite intended to help in the fields of telecom, television networking and weather monitoring, was launched last April and collapsed on 6 September following fuel depletion.

Both the satellites were built by Ford Aerospace and Communications Corporation (FACC) of the United States on a contract basis for the Indian Department of Space.

Mr Kale said INSAT-1B had already gone through thermo vacuum tests and was getting ready for the acoustic and vibration tests.

Work on the satellite was on schedule and it was expected to be moved to the launching site at Cape Canaveral by mid-March from where it would be launched on space transportation system STS-8.

The original schdeuled launch was early July. However, the launch would depend upon the scheduling of STS-8 flight which might be delayed due to some technical problems encountered by STS-6.

Replying to a question, Mr Kale said he had no doubt about the efficacy of the three-in-one design of INSAT. The high level review committee which probed the cause of failure of INSAT-1A had also opined that the design of INSAT was sound.

No decision had yet been taken on providing an in-orbit spare for INSAT-1B. The INSAT-1B itself was intended to be a spare for INSAT-1A. However, with the collapse of INSAT-1A, INSAT-1B would become the main satellite providing services in the fields of telecommunication, television and radio networking and weather monitoring from its space slot at 94 degree east longitude.

INSAT-1A ran into problams since its launch. Its umbrella-like solar sail remained stuck till the last. INSAT weather monitoring was affected due to a power drop in the very high resolution radiometer (BHRR). Finally the satellite collapsed after being in operation for just 82 days against its scheduled life span of seven years.

CSO: 5500/7066

SPECIAL PROJECTS FOR COMMUNICATIONS YEAR REPORTED

Calcutta THE SUNDAY STATESMAN in English 16 Jan 83 p 6

[Text] New Delhi, Jan 15--A number of special projects are proposed to be set up and schemes initiated during the current year by the Department of Communications as part of the World Communications Year.

The Posts and Telegraphs Department, plans to have a rural telecommunications projects especially covering hill, desert and coastal areas. An integrated (digital) rural radio system is also proposed to be started.

Improvement of the existing telephone exchanges in the metropolitan cities, induction of electronic switching systems, improving the working of coast stations and issue of commemorative stamps also figure in the list of projects intended to be taken up this year.

Also on the agenda are a project for accelerated growth of traffic in international circuits, data communications, and radio photo services by the Overseas Communications Service, providing a special "meteor burst" communication system for the police, a passenger telephone facility for the railways, a better communication system for cyclone-affected areas, organization of seminars on marine communications and frequency management and training of technical personnel from developing countries.

The Posts and Telegraphs Department plans to start work on the first large-scale digital system soon. Analog electronic switching systems will be introduced in metropolitan telephone districts.

As for improving the existing telephone exchanges, upgrading programmes for the entire local telephone network has begun. The electromechanical switching system is being replaced by the electronic system.

Regarding the introduction of telephone facilities on trains, considering the priorities and the investment involved in providing such a service, it is likely that during the year only a study project can be taken up, possibly with the use of satellites, for such a service.

The celebration of the World Communication Year is in pursuance of a resolution of the U.N. Assembly in 1981. A special fund has been set up by the U.N.

CSO: 5500/7067

NEED FOR IMPROVEMENT OF TELEPHONE SYSTEM NOTED

Communications Seminar Opens

Calcutta THE STATESMAN in English 4 Jan 83 p 3

[Text] Inaugurating a national seminar on "Telecommunications for National Development" in Calcutta on Monday, Mr S.K. Ghose, Secretary Union Ministry of Communications, admitted that "we are not able to give the people the services they expect from us." He also regretted the sharp deterioration in the services of Calcutta Telephones, which even in 1965 was the best among those set up in the metropolitan cities of the country. The two-day seminar was organized by the Indian Chamber of Commerce Calcutta.

The Union Secretary announced a reshuffle in the organizational structure of his department as part of the programme to improve telecommunication services. There would also be a similar reshuffle starting at the bottom, but not immediately, since it was being studied by an expert committee, he said. He hoped that by the end of this decade, telecommunication services would improve considerably to satisfy every one, including the average subscriber. He further noted that the efforts to improve Calcutta telephones would be successful.

Mr Ghose said modern factories were being set up to cater to the needs of the people and the country. He cautioned that all modernization and induction of sophisticated technology would not pay unless the human factor could be taken care of adequately. How was it, he asked, that the situation was better in some parts of the country though all were working with the same equipment and infrastructure. He underlined the necessity of providing basic facilities to workers to inspire them. He regretted that unlike as in Japan, workers here took little pride in their work either in the public sector or in the private sector. The abnormally high telephone-worker ratio also needed to be cut down, he added.

Mr Ghose thought that the development of telecommunications had been further impeded because the Centre or the Planning Commission had never recognized it as a core economic sector but as a commercial department. The inflationary trend in the economy had hit the department as well.

In his keynote address, Mr M. M. Kini former member of the Post and Telegraphs Board of the Ministry of Communications, said the growing gap between demand and services had resulted in administrative and operating problems and had

affected services. He said satellite communications digital electronic exchanges and optical fibre systems were examples of rapid advance of telecommunications technology, but proper planning, sound construction practices, good maintenance and careful monitoring of service quality, were also required.

Mr A.K. Jain, vice-president of the Federation of Indian Chambers of Commerce and Industry said the country had failed to make the necessary investments in this sector till the Fifth plan period. India's average annual investment in telecommunications was only a "ridiculous" 0.17% of the gross domestic product, compared to 0.34% in Malaysia, 0.53% in Sri Lanka, 1.50% in Japan and 1.23% in the U.K. Mr B.D. Bangur, president of the Indian Chamber of Commerce, urged the Government to improve telecom services.

Problems of System Described

Calcutta THE STATESMAN in English 21, 22 Jan 83

[Commentary: "Indian Telephones"]

[21 Jan 83 p 8]

[Excerpt] An Atmosphere of General Abuse

According to the projections of the Telecommunications department, by 1990 Calcutta should have about 800,000 telephones and by 2000 A.D. around two million—or 10 times the present number. Should this be achieved by expanding the present rickety system or by scrapping it altogether and making a fresh start with an efficient modern and cost effective multipurpose network? The present telephone network is essentially an extension of a system founded more than a century ago. Has it outlived its utility and do we need a new one to meet the needs of the next century? These questions are not peculiar to Calcutta but apply to the whole country.

How does the present system work? The telephone department employs one person for every nine telephones. In the West and some South-east Asian countries the ratio is one employee for 100 to 200 telephones. Figures show that the comparative efficiency of Indian telephones is in inverse proportion to their employment potential, possibly because an automated system is more efficient than one that is manually operated. According to the Sarin Committee's findings "every third employee" of the department which employs some 300,000 people is an office-bearer of one of the numerous trade unions that thrive on its largesse. Add to it the phenomenal absenteeism among the staff which in Bombay was as high as 43% during 1980, peaking at 50% in November.

The malady afflicting the department can be summed up in one word: "demoralization"—among the officers at all levels right up to the top, because they feel there is no way they can enforce discipline among the employees and make them work and among the workers because they feel like unwanted children who must wail and weep all the time to make themselves heard. The officers feel they cannot improve telephone operations and subscriber dealings so long as the department remains so heavily loaded with virtually idle and redundant staff fully protected by powerful trade unions and their political masters.

CORRUPTION

According to the Sarin Committee, "malpractices are taking place in all the areas" which include stores, works, casual labour and muster rolls, local purchase, technical feasibility of providing connexions, verification of bona fides, commercial sections and accounting and billing. In the technical section there are complaints of blocking of metering, diversion of telephone lines, giving free trunk calls and unauthorized connexions, and expectation and demand of illegal gratification for satisfactory maintenance of service.

The scope of corruption in these areas has increased progressively with the advent and growth of national and international dialling. There are possibilities of a ganging up of unscrupulous officials in the department with equally unscrupulous users outside. In major and metropolitan districts, the existence of some well-established syndicates is known or talked about. There are ways of blocking the metering or diverting the lines to give a subscriber benefit of non-registration of STD calls on his meter.

The Committee goes on to say that "the demand for illegal gratification to keep the subscribers' telephones working is increasingly coming to notice, especially in major telephone systems. Similarly, through well-established 'contact' men manual trunk calls are offered without booking: booked calls are undertimed and an 'ordinary' call is put through on the highest priority".

Such is the culture of the telephone department that, contrary to the expectation of the Sarin Committee, the proposed

switch-over to the electronic system which involves a high degree of automation will hardly make any appreciable difference to the existing staff: telephone ratio. During the Sixth Plan the number of telephones is to go up from two million to 3.4 million and that of the employees almost proportionately from 300,000 to 420,000.

The telephone is still a highly privileged facility in the country. With 2.3 million subscribers, the department has a waiting list of 600,000. Some top officials believe that so great is the demand that the waiting list could swell to six million overnight if they announced that a phone could be had any time. For the department it is also a highly profitable venture. Delhi Telephones alone make a profit of Rs 63 crores out of a revenue of Rs 87 crores and the department has offered to pay for its entire plan outlay of nearly Rs 3,500 crores out of its own profits. But the Government has slashed it by about Rs 1,000 crores so as to divert part of the profits to other areas.

It is obvious that had the service been more efficient and less wasteful the profits would be higher. The Communications Ministry wishes to invest Rs 10,000 crores during this decade to add five million telephones to the network and switch over to the electronic technology. This naturally raises the question as to who should be its beneficiaries. Today, the service is heavily weighted in favour of a privileged class which does not even pay for it from its own pocket. Large, very vital sectors of the economy are not served by it at all.

Thus, according to a study by Mr S. N. Kaul, an economist of the P. and T. Board, in agriculture, animal husbandry, forestry, fishing and mining which account for about half the country's gross domestic product "the use of telecommunications is less than one per cent of P. and T.'s output". More than a third of the telephones in the country are concentrated in the four metropolitan cities of Delhi, Bombay, Calcutta and Madras which together account for barely 4% of the population. Over 82% of the telephones are confined to cities with a population of over a lakh The big cities in turn have their own hierarchical pyramid of users.

The introduction of the Subscriber Trunk Dialling facility has added another dimension to the waste. Within a few years trunk revenues (including those from STD) have shot up five times and the number of trunk communications 15 times. Quite a good part of the STD traffic is not only avoidable but unauthorized and illegitimate. Like a greedy commercial undertaking, the telephone department has been conniving at the squandering of this scarce national resource by deliberately delaying the installation in the exchanges of the Automatic Message Accounting System which automatically keeps a detailed record of each STD call made on every telephone. This can be done by investing a negligible fraction of the huge profits the department makes from the STD service.

OVERLOADED

By contrast, less than 1% of the telephones are public call phones called PCOs. A random round anywhere would show that at no time are more than 10% to 20% of these actually functioning. The Sarin Committee has recommended that these should be at least 50% of the total. The priorities in allocating new connexions normally go to a variety of Government and institutional users which includes an even larger number of "residential" lines paid for by them. The case of the genuine common aspirant for a telephone goes unnoticed unless he pays a punitive fee of Rs 8,000, besides making various under cover payments to expedite the process.

In this atmosphere of general abuse of the system it is not surprising that those who cannot make free calls by what are called "fair" means do so by adopting "foul" methods such as bribing the officials and operators who then make daily rounds of their clandestine clientele to collect the fee for the "concessional" service.

Against the worldwide average of three to four calls per telephone per day in the West, the average in India is 11. But since the load is concentrated largely on 15% of the telephones in the country, it means 12 to 13 calls per hour per line during peak hours at the busy metropolitan exchanges. Added to that is the factor of the extraordinarily long duration of some calls which can last as long as an hour. All-in-all, the Indian telephone system presents the spectacle of an unholy alliance between the largely surplus and unresponsive staff and the equally irresponsible user.

[22 Jan 83 p 6]

[Text] Need To Begin on a Clean Slate

Until 1974 when France embarked upon a crash programme to give itself a first-rate telephone service, a popular joke in that country was: "A Frenchman spends half his time waiting for a telephone and the other half waiting for a dial tone." But within five years all that had changed and today France has emerged as one of the world leaders in telecommunications technology. Jokes about the Indian telephones are legion and usually well deserved. It is often not an exaggeration to say that one could sooner walk the 30 kilometres from Delhi to Ghaziabad or to Faridabad than reach someone there by telephone. India now wants to repeat the French miracle. But there are critics who wonder whether India can accomplish in 50 years what France was able to do in five.

From the purely technological point of view, a duplication of the French model should be much easier today than it was 10 years ago due to the breathtaking advances in electronics which have, among other things, brought about dramatic reductions in costs. The 10,000-line stronger exchange now prevalent in India resembles a large factory with huge halls packed to the top with machines. Its electronic counterpart can be housed in about a dozen ordinary steel almirahs. The chip which replaces the massive switching systems of steel is becoming cheaper every year.

Cost Effective

Transmission systems are becoming equally if not more cost effective. In the present systems, each telephone has to be connected to a central exchange several kilometres away by a pair of copper conductors at exorbitant costs. Under the new pulse code modulation (PCM) system, one pair can serve 30 separate telephone numbers. This would mean a big saving since today cable costs account for nearly half the capital outlay of around Rs 12,000 on a telephone. The costs can be further reduced drastically in large concentrations of population by putting up a small electronic exchange in each neighbourhood. Such decentralization is not practical or economic under the existing system. Optical fibre cables between exchanges and microwave links could effect considerable savings in copper costs.

Operated the way it works in the West, electronic telecommunications would be many times cheaper than the present system. Its per unit need of manpower, which accounts for the bulk of the operational costs of Indian telephones, should come down to one-tenth the present rate and efficiency and consumer satisfaction should go up 10 times. This claim is supported by statistics. Against an average of seven faults per subscriber per year in India, only 0.5 faults are recorded in the USA. With dramatic reductions in capital and operational costs, it should be possible to extend this service to an increasingly large number of people until it becomes an item of popular use like a scooter, TV or bicycle.

Experts are quick to point out that "under Indian conditions" all this cannot be accomplished in a hurry. The odds are formidable. They freely admit that

the current perspective projections of adding five million new electronic lines to the present 2.3 million in the current decade, and possibly another 10 to 15 million in the next, are merely notional and there is no serious move towards implementing such ambitious targets. The biggest hurdle is the slow-moving "hit or miss" culture of the almost wholly manually operated telecommunications department which is totally incapable of assimilating the push-button "fail safe" electronic system. Most of them agree that it would be easier by far to install an altogether new nationwide electronic network than to superimpose it upon the present organization.

Two Systems

"The two systems are not at all compatible in any manner. It would be like using a bus station as an air terminal or an old radio station as a TV studio," some telecommunications scientists explain. Yet this is precisely what the department is trying to attempt. Considering that its present service, both in range and variety, is barely 10% of what it is expected to be by the turn of the century--and most of it is already obsolete and due for replacement--the suggestion for a fresh start on a clean slate deserves serious consideration. But this can happen only when it is realized that by modern yardsticks India today does not have a dependable telephone service.

The Indian telephone system is itself an elaboration of the technology it inherited at the time of Independence when there were barely 80,000 telephones in the country confined to 659 places (compared to 26,000 places now). India is perhaps the only country in the world which is still manufacturing about 250,000 pieces a year of the telephone instrument of 1940 vintage. This is being done despite the official recognition that 35% of the "faults" of the service are attributed to the instrument. In the West an instrument fault is reported once in four years. In India it keeps happening all the time. A Japanese dial gives fault-free service for one million diallings. The Indian version is good for only 10,000 diallings, telecommunications experts point out.

One would have thought that if it was at all earnest about improving the service, the first thing the department would do was to scrap the present telephone instrument plants at Bangalore and Naini and install new ones. But that clearly is its last priority. A proposal cleared three years ago to import some 100,000 telephones and set up a factory of new design is still reportedly gathering dust somewhere in the Cabinet Secretariat.

Around 50% of the faults lie in the cable network, chiefly in the metropolitan centres where the proportion is even higher. Large-scale thefts and pilferages add to the problem. There is besides the chronic shortage of spares, a nationwide problem. Recently, a high-level group of experts reportedly suggested that the service would improve substantially if one year's entire production of the various factories was diverted to meet the huge shortage of spares and new expansion schemes were suspended for that period. Much the same problems plague the system everywhere, more so in the metropolitan towns.

A special committee headed by Mr Nitin Desai, Adviser to the Planning Commission, reported that "to-ing and fro-ing" of files and cases was the bane of

all projects of the department which took eight to 12 years to execute. There is no relation between the separate sequences of supply of equipment and materials and the various processes of the erection and commissioning of a factory or exchange. Experts have also found that no dependable inventories exist of spares general stores.

There is now general awareness of the need for an efficient telephone system as an essential input in development but not of what it entails to build one. It is also recognized that the system should not be confined to the major cities but should constitute a multi-purpose and multi-channel integrated network extending right down to the village, which is possible only through the electronic system. The village to district and district to capital city linkages are seen as a vital part of the development process to provide a continuous two-way feed back to Government, industry, business and agriculture. Equally important is instant communication between big cities and their satellite towns. But the capacity to attain these laudable goals is nowhere in sight though it is realized the world over that an efficient telecommunication service is a major substitute for travel and, therefore, highly energy saving.

Ray of Hope

The modest Telecommunications Research Centre of the department presents perhaps the only ray of hope in an otherwise gloomy picture. Its scientists make no tall claims. In fact, is is much too small for any meaningful activity. Its own reports speak of its meagre budget and of its requests for its needs, such as prototype building facilities, being summarily turned down. Within its severe limitations it has made some impressive contributions such as improvements in the cross-bar system to adapt it to Indian conditions and development of micro-wave and satellite channels. But it is essentially a demonstration lab or window to provide a glimpse of some of the numerous technological capabilities--as well as intricacies--of modern telecommunications.

It would be naive to suppose that it is equipped to introduce them in India. Its space satellite, fibre optics, microwave and digital data systems labs are doing what is basically a learning job. This would be of vital importance at the stage of importing the new technology. But it would be wrong to mistake it for a worthwhile indigenous capability in electronic telecommunications which does not meaningfully exist anywhere in India. It is a far more complex technology than that of the motor car which eventually we have had to import wholesale. The choices before the country seem to be clear though harsh: to muddle through with the present hodge-podge or to begin with a clean slate.

[Correction] In Part I of this article which appeared yesterday it was wrongly printed that the Sarin Committee had recommended that at least 50% of the telephones should be PCOs. The figure is 5%.

CSO: 5500/7064

BRIEFS

RURAL RADIOPHONE--Ahmedabad, Jan 12--The country's first multi-access rural radio telephone system was commissioned at Mehsana, 50 km from here, by the Union Minister of State for Telecommunications, Mr Yogendra Makwana, on Tuesday. The Rs. 19 lakh system, a major breakthrough in telecommunication service, will provide reliable round-the-year service to 14 villages in Mehsana district. The radio phones will work on the wireless system, interconnecting the telephone booths in these villages. These would be connected directly to the Mehsana trunk exchange by radio links instead of the conventional pair of wires, according to the General Manager of Telecommunications, Gujarat Circle, Mr V.N. Warhadkar. Mr Makwana said the multi-access radio telephone would be provided in 12 centres in the country during the year. Equipment and machinery for the radio telephone system are being imported now. At a later stage they could be manufactured by the Gujarat Communications and Electronics Company in Baroda.--PTI [Text] [Madras THE HINDU in English 13 Jan 83 p 7]

KODAIKANAL TELEVISION RELAY--Madras, Jan 15--Doordarshan has formally taken over from the Tamil Nadu Government, possession of a site at Kodaikanal for locating the TV relay centre. The area, measuring 1.4 hectares, including 0.8 hectares taken over from the Kalakshethra, is at an altitude of about 2,000 metres. Work on a 150-metre high TV tower there is expected to start shortly and when completed, it will provide TV coverage to a radius of 180 km. The transfer of land, free of cost, has been done expeditiously because of the keen interest and help of the State Government, says an official release. [Text] [Madras THE HINDU in English 16 Jan 83 p 13]

TELEVISION RELAY EXTENDED--New Delhi, January 16 (PTI)--Doordarshan has decided to extend its daily national programme by half an hour from 8.30 p.m. to 10.30 p.m. from January 16, according to an official release. The programme would be relayed by all Doordarshan centres and low-power transmitters. In addition to this, low-power transmission would continue to relay daily from 7.30 p.m. onwards on Weekdays and from 3.30 p.m. onwards on Sundays, the release added. [Text] [Bombay THE TIMES OF INDIA in English 17 Jan 83 p 1]

CSO: 5500/7065

PLAN FOR EXPANSION OF COMMUNICATIONS UNVEILED

Karachi DAWN in English 1 Feb 83 p 10

[Text]

ISLAMABAD, Jan 31: The Director-General, Telephone and Telegraph (T&T), Brigadier Mansoor-ul-Haq Malik, today stated at a news conference that the T&T proposed to spend Rs 1300 crore on its next five-year plan which includes expansion and establishment of latest technology in the field of communication.

He said the United Nations had proclaimed 1983 as World Communication Year and Pakistan, along with other member States, has recognised communication as an important element for the economic and social development.

Mr Mansoor-ul-Haq said Pakistan Telegraph and Telephone will observe the month of February as "courtesy and efficiency" month. T&T staff had been instructed to behave well with consumers and visit them personally at their homes in order to solve their difficulties concerning the T and T department.

The department will give 6000 new telephone connections to consumers all over the country during the month of February, he added.

A national committee, composed of noted educationists, sociologists, doctors and media men, has been set up to make arrangements for the celebration of this month.

T and T, he said, had proposed to give 50000 telephone connections during the year starting from November 1982, out of which 26000 have already been installed while the rest will be given to consumers in a few months.

As many as 600 new telex connections will also be given to consumers during this year.

Overseas calls system, he said, will get some positive changes during 1983. The consumers have to face a lot of hardship in getting overseas calls mainly because of limited circuit numbers, he said.

To a question Mr. Mansoor admitted the T and T's overall performance was not very encouraging.

Excessive billing was very common in Pakistan, "but it was a social problem and not a technical one".

He told a questioner that a campaign would be launched soon to recover Rs 27 crore from various Goverment agencies.

Replying to another question he said the long awaited plan of establishing a telecommunication satellite station in the country was not in possible near future because of financial implications.

The scheme, he said, which had extensively been discussed by the Federal Cabinet, was later sent to the T & T department for technical comments.

Mr Mansoor said that India had set up a telecommunication satellite station which was later closed down.

CSO: 5500/4720

PAKISTAN TO SIGN SPACE ACCORD WITH FRANCE

GF131328 Karachi DAWN in English 7 Feb 83 p 9

[Article by H.A. Hameed]

[Text] Pakistan will soon enter into an agreement with a French space agency for receiving pictures from the "earth resources survey satellite" of France which will be in orbit early 1985, Mr Salim Mehmud, chairman of Space and Upper Atmosphere Research Commission (SUPARCO), said.

In an interview to "DAWN," he said Pakistan would set up a ground station in the Islamabad area for direct reception of picture information from the satellite.

The agreement will be signed with the CNES, the French space agency. At present, a memorandum or understanding is being discussed between the two agencies, he stated.

SUPARCO will have to pay a fixed licensed fee for services and for each picture received and reproduced. The pictures will be both in technicolour and black and white and will be received with the help of laser recording equipment. A third party, "Spot Image," also a French agency, will be providing the satellite services.

The ground station will cost 10 million U.S. dollars and will be set up with the technical assistance of the U.S., or Canada or France.

The agreement will also cover facilities for exchange of scientists and engineers of the two space agencies, besides technical and scientific reports.

"We are investigating the possibility of reactivating joint scientific rocket-launching experiments which are of mutual interest to the two agencies," Mr Mehmud added.

CSO: 5500/4719

BRIEFS

PLEA FOR SAUDI PROGRAMS--FAISALABAD, Jan 23--Mr Azeez Ahmed, founder of the Society of King faisal (Saudi Arabia) in Pakistan and a social worker of Faisalabad has suggested that the Pakistan Government should arrange the telecast of religious programmes of Saudi Arabia on PTV like Al-Ilmo Wal Quran and Al-Ilmo Wal Eeman. Mr. Aziz Ahmad, performed Haj on the special invitation of the Saudi Government praised the Haj arrangements for pilgrims, both in Pakistan and Saudi Arabia and also lauded King Fahd's declaration on common market for Gulf countries aimed at Islamic solidarity. [Karachi DAWN in English 24 Jan 83 p 7]

CSO: 5500/4720

BRIEFS

REGIONAL TELECOM MEETING--The third annual coordination conference of the Southern Africa Telecommunications Administration [SATA] ended in Mbabane today after 5 days of very fruitful discussions. The conference provided an ideal forum for the telecommunications administrations of Botswana, Lesotho, Malawi, Mozambique, Swaziland, Zambia and Zimbabwe to exchange information and views on their respective telecommunications networks; to coordinate their future plans for inter-regional working; and re-enforce the objectives and concepts of the OAU and Southern African Development Coordination Conference [SADCC] in the realization of the Pan-African Telecommunications Network [PANAFTEL]. During the discussions, emphasis was placed on the need to improve the existing communications services within the subregion and to coordinate the maintenance of these facilities. The conference noted that most countries in the subregion already have plans for procurement of international gateway exchanges via the international subscriber dialing services between them. [Text] [MB221737 Mbabane Domestic Television Service in English 1630 GMT 22 Feb 83]

CSO: 5500/103

ASSISTANCE FOR OVERHAUL OF PHONE SYSTEMS

Port Louis LE MAURICIEN in French 18 Jan 83 p 1

/Text/ The minister of external affairs, Jean-Claude de L'Estrac, and the French ambassador, Henri Bernard, signed an agreement yesterday for the financing of logistic support for the program to overhaul the telephone systems of Port Louis, Triolet and Grand-Baie. The financing of this program, which will cost 30 million francs (about 47,250,000 rupees), will be supplied by the Central Fund for Economic Cooperation (CCCE) and guaranteed private credits.

In his speech, De L'Estrac praised France for its support of Mauritius' development: "The many projects financed by France is proof of the determination and desire of the French government to support the Mauritian government's efforts to improve the quality of the lives of Mauritians." The minister thanked the Aid and Cooperation Fund (FAC) for financial aid of 4 million francs (about 6.3 million rupees) in the form of personnel, technical assistance for work control and the training of Mauritian personnel.

Bernard said that a good telephone system is essential for the development of a country. "It spares one long trips and prevents any loss of time. The modernization of the telephone system also reduces maintenance costs," he said.

Bernard is of the opinion that development projects within the telecommunications sector will make it possible to provide Mauritius with a new electronic telephone exchange by 1985. "Mauritius will then become one of the best-equipped countries in the Indian Ocean," the French ambassador emphasized.

Let us remember that the CCCE loan will be subject to an interest rate of 5 percent and will be payable in 15 years, with a 5-year grace period. This loan brings to 76.5 million francs the amount of CCCE financial aid for expansion and improvement of the Mauritian telephone system.

8143
CSO: 5500/89

ERICSSON SELLS PHONE, COMPUTER NET TO NIGERIAN OIL FIRM

Stockholm DAGENS NYHETER in Swedish 22 Jan 83 p 9

[Article by Olle Rossander]

[Text] After almost 5 years of negotiations with the Nigerian Government, the Ericsson concern expects to sign a 1-billion-kronor contract with Nigeria this spring.

Ericsson will expand the telephone and computer net for the state-owned NNPC [Nigerian National Petroleum Corporation].

The order is worth about 1 billion Swedish kronor. Ericsson's annual volume of new orders totals just over 20 billion kronor.

Two-thirds of the sum represented by this order will go to Sweden, and the rest will go to Ericsson's subsidiary in Lagos, as required by the Nigerian party.

In Sweden, the order will provide work primarily for the Sieverts cable manufacturing firm and the units manufacturing private branch exchanges.

Some of the most important negotiations still lie ahead.

Jahn Wennerholm, head of Ericsson's industrial communications unit, says: "Financing, insurance matters, and the related costs are issues that still must be resolved.

"This may involve large sums that the customer will pay."

Wennerholm declined to say how much greater the costs would be, but including interest, they will add nearly 500 million kronor to the total.

Ericsson says it is not concerned by the possibility that Nigeria will not be able to pay its way because its economy has been undermined by falling petroleum prices. Talks concerning the financing will be held with the SEK [Swedish Export Credit Corporation] and the EKN [Export Credits Guarantee Board]--the government organizations that handle export credits--and with the ECGD, their British counterpart. The object is to arrange low-interest loans for the customer that will be financed by the Swedish Government at a couple of percentage points.

Ericsson won the order in competition with about 20 companies from all over the world, but it took a long time.

Jahn Wennerholm says: "What one needs above all in Nigeria are patience and lots of time."

The order, which is concerned mainly with internal telephone systems and exchanges, also includes telex and computer networks, mobile radio systems, and a special telecommunications network to link the oil company's various installations around the country with the oilfield.

11798
CSO: 5500/2535

RTS JOINS PAN-AFRICAN BROADCASTING BODY

Victoria NATION in English 2 Feb 83 p 1

[Text] JUST four weeks after its inauguration as the umbrella organisation of the national radio and television services, Radio-Television Seychelles (RTS) has become a full member of the pan-African broadcasting body, the Union des Radios et Télévisions Nationales d'Afrique, (URTNA).

RTS' application was unanimously accepted by the 23rd general assembly of the Union last week in Algiers, Information Director Antonio Beaudoin announced yesterday, immediately granting it the full right to take part and vote in the session.

Another new member accepted at the same time as RTS was the Zimbabwe Broadcasting Corporation.

URTNA groups the national broadcasting organisations of the independent countries of the continent, except South Africa. It also has associate member organisations, mainly from Europe, and works closely with other broadcasting unions grouping regional organisations.

Among the decisions taken at the 23rd general assembly — which was officially opened by the Algerian Prime Minister — was to launch the first stage of an experimental global exchange of television news via satellite.

Under this project, countries of a region will exchange television news through a regional co-ordinating organisation to be followed eventually with an exchange between the various regions, thus making it a global exercise.

In Africa, the experiment will begin on March 1 with Radio-Television Algeria acting as coordinator and seven other countries taking part.

CSO: 3400/102

BRIEFS

COMPUTER FINANCING SERVICE--THE R35-million-a-year computer company, Hewlett-Packard SA, and Barclays National Industrial Bank have launched a joint company, Fincomco, to provide a financing service to buyers of the company's computer equipment and software. The new company offers competitive financing as well as instalment-sale facilities and operating leases. The new deal is expected also to accelerate credit approval and consequently speed up delivery of products to customers. [Text] [Johannesburg SUNDAY TIMES-BUSINESS TIMES in English 30 Jan 83 p 1]

CSO: 5500/98

ESTABLISHMENT OF NATIONAL PRESS AGENCY PLANNED

Mbabane THE TIMES OF SWAZILAND in English 3 Feb 83 p 4

[Text] SWAZILAND stands poised on the threshhold of establishing its own national news agency which will be known as the Swazipress Agency, it was announced this week.

The project is being established with the help of the United Nations Educational, Scientitific and Cultural Organisation (UNESCO). The idea of a national news agency was mooted when the Director-General of Unesco, Mr. Ahmed M'bow, visited Swaziland two years ago and held discussions with the relevant Government ministries and departments.

This week, Unesco's Co-ordinator for News Agency Development, Mr. Goodwin Anim, completed a two-day workshop during which he had extensive discussions with local journalists during which views were exchanged on the project.

But how is a news agency like to revolutionalise the news media? Well, for one thing, when the national news agency starts operating, it will reduce the urban-oriented news content as there will be a situation where the costs of news coverage nation-wide will be shared between the various media organisations and the Swazipress Agency.

The Swazipress Agency, which will be Government-controlled, will have four district offices situated at Pigg's Peak, Siteki, Manzini and Nhlangano, plus a head office in Mbabane according to a government source.

The shared costs for nation-wide coverage will come in the form of subscriptions from the present media institutions and other interested organisations in the country.

The proposed operational structure is a Mbabane-based head office headed by an editor-in-chief, two sub-editors and eight reporters. A reporter-in-charge will head the district offices assisted by four reporters.

What came out loud and clear at the workshop, which was held at the Swaziland Broadcasting and Information Services, is that the head office of the agency will be operating 16 hours until midnight during normal working days and even longer during busy periods such as at Christmas time. The district offices will operate from 8 a.m. until 7 p.m. under normal circumstances, but if there is a story going in the particular district the reporting staff will just have to work extra hours.

Transmit

It will be the duty of the reporter-in-charge of a district office to go out into the country and get news stories. These he will have to prepare and transmit to head office who in turn will sub-edit and transmit to subscribers simultaneously. The workshop emphasised that the transmission to subscribers will be simultaneous to avoid "scoops" by organisations getting the stories first.

The reporter-in-charge of a district office will have to know how to use a telex machine as there will be no telex assistant or secretary.

Staff employed by the agency will from the onset have to get used to modern techniques of communications as it is intended that in 15 years after the start of operations the agency should adopt the latest equipment in news communications as practised in well-established international news agencies where the type-writer has disappeared.

Decision

Although the agency is intended to start as a Government institution within the Department of Broadcasting and Information, it is generally understood from reliable sources that the agency should achieve parastatal status within five years of commissioning. Of course, the decision whether or not the agency eventually becomes parastatal will be left entirely in the hands of Government, according to official sources.

Not much is known about the case for the agency staying 100 percent under direct Government control, but the arguments for it being made parastatal are many. For one thing, there is the question of getting capable personnel to run the agency as a government institution.

Expatriates aside, it will be rather difficult to attract enterprising reporters to join the organisation if it remains under government control indefinitely, for obvious reasons.

One of these reasons is that the Government might not be able to pay attractive salaries for the amount of work required.

This is particularly important if the long hours involved in such a project are taken into consideration.

It is not every Government department that pays overtime. Even where this is possible, processing of such overtime may take time, resulting in a demoralised staff.

This is one thing any news agency can least afford. Without enthusiasm, a newsroom can become one of the most boring places in the world.

As one speaker told the workshop: "If you are not satisfied with the conditions of service, you simply leave." Now the question is, can a news agency afford a reputation of an unsatisfied staff? This writer's submission is a big NO.

Contribute

So while, there is no doubt that a national news agency will contribute tremendously to national development, careful planning on the part of those concerned is a must. There is every possibility that the Swazipress Agency could succeed so long as those concerned do their homework and approach the project with the right attitude: to give, first, service to the public.

After all, journalism is about people and what they do. So long as sight is not lost of the fact that people want to be personally involved and read or hear about their problems and achievements, the Swazipress Agency will blossom to play its rightful role as an agent of national development.

CSO: 5500/101

BRIEFS

NEW TRANSMITTER PLANS--The director general of the Zimbabwe Broadcasting Corporation, [ZBC] Comrade (Dirivas B. Kangari), has confirmed that provision of a transmitter for the Que Que-Redcliff area is contained in the ZBC development plan. The transmitter is expected to be installed in 1984-1985. The town clerk of Que Que, Comrade (Bere), said the installation of the transmitter will greatly improve the reception in these areas. [Text] [MB090500 Harare Domestic Service in English 1745 GMT 8 Feb 83]

CSO: 5500/95

SWEDEN'S LARGEST-EVER CABLE TV TEST INVOLVES FRG, DENMARK

Stockholm SVENSKA DAGBLADET in Swedish 5 Jan 83 p 6

[Article by Bjorn Fabricius Hansen]

[Text] The cable TV test that will start in Lund in October will be the largest ever in Sweden. According to the National Telecommunications Administration, about 3,000 Lund residents will have access to the FRG's three channels (including one commercial channel), the GDR's two channels, and Danish Television.

Civil engineer Lars Aronsson, who is project leader at the National Telecommunications Administration, says: "Using two large parabolic antennas on the hospital roof, we will pipe the German programs to the neighborhoods of Nobbelov and Klostergarden. This is a pilot experiment in preparation for the 'satellite age.' To gain experience, we will use Nobbelov and Klostergarden as test areas to simulate the situation that will exist when West German, French, and British direct-broadcast satellites are in orbit and reach Sweden with their programs."

"Soft" Start

The test in Lund will also mean a "soft" start for the National Telecommunications Administration's plans to supply most of the country with cable TV. A broadband system will be installed, and it will have large capacity: 20 TV channels and an equal number of audio broadcast channels.

The expansion will then go further. Lund will be the first to be "cabled in," but the National Telecommunications Administration has also selected other test areas, among them Skarpnack in southern Stockholm.

There is another important reason why the National Telecommunications Administration wants to start its tests in 1983.

Aronsson says: "We would prefer to have orderly cable TV development in Sweden. If we don't, we may have panicky expansion in 1985-1986, when the foreign satellites begin transmitting."

Leif Backlund, who is also part of the project group, says: "Cable TV systems can also be regarded as a first step toward a coordinated future telecommunications network that will include telephone, data, text, and picture services."

Several Tests

Aronsson continued: "Great possibilities are opening up in Lund to test a number of different services. After we start broadcasting the Swedish, German, and Danish TV programs over the system, there will still be a large number of TV and audio broadcast channels. They can be used for local programs, tests with pay TV, two-way communications, and other tests."

Many interested groups have been heard from. They include Swedish Television, the daily newspapers, organizations for the handicapped, local governments, county councils, and the sports movement.

Educated Viewers

One reason why Lund was chosen for the first test by the National Telecommunications Administration was its proximity to Germany. Since the test will involve programs broadcast over the airwaves in the usual manner, the distance must not be too great if good picture quality is desired. The National Telecommunications Administration will pick up the signals from a West German transmitter located near Kiel and from the East German transmitter in Marlow.

Aronsson says: "We do not plan to steal their programs. We are going to begin discussions with the authorities and television stations in both countries to settle the matter of compensation."

The National Telecommunications Administration also chose Lund because it is a school and university town where people are proficient in different languages and can therefore benefit easily from foreign programs that do not carry subtitles.

Additional Fee

Several surveys will be conducted to determine how the programs are received and how Lund's residents will choose between foreign and Swedish programs. But one measure of their interest will exist from the start. Those who want to receive the programs must pay a special fee in addition to the regular license fee. Every household must pay an installation fee of 500 kronor, followed by a monthly fee of between 10 and 20 kronor.

The West German commercial channel may pose a problem if the government does not agree to let commercials enter Sweden.

Aronsson says: "That problem has a technical solution in that we can switch off commercials so they do not reach the viewers. But it is up to others to make that decision."

Combined Systems

So there is an interest in utilizing the system's excess capacity. But here is where the government will have to make a decision.

Head of Division Leif Andersson (Social Democrat), who is chairman of Parliament's Mass Media Committee, says: "We are interested in the test, but the degree to which we become involved will be decided by the supplementary directive, which is now being worked out at the Ministry of Education." That directive is expected to be issued in the latter part of January.

TV chief Sam Nilsson says: "We are definitely interested, but I also see certain problems. Among other things, there are international legal problems that must be solved, and discussions are underway."

The TV Corporation has produced its own pay TV study. It is based on different assumptions than the National Telecommunications Administration's plans for developing cable TV. But there is no antagonism between the two systems. The TV Corporation and the National Telecommunications Administration both say that the two systems may very well be combined.

11798
CSO: 5500/2589

BUNDESPOST WEIGHS TELETEX FEE POLICY

Duesseldorf WIRTSCHAFTSWOCHE in German 7 Jan 83 pp 17-18

/Text/ Speculations about future fees are causing anxiety to teletex users. The initial Bundespost plans aroused fears of a very expensive medium. By now, though, it appears that the Bundespost is ready to compromise.

Wherever in recent weeks members of the teletex sector met, they talked sooner or later about the mysterious factor 8. This does not refer to the special drug for hemophiliacs, although it bears the same name, but to the great unknown factor in the teletex game: What will be the fees charged by the Bundespost for the new medium? Some people claim to know that the cost of feederation-wide supplies is to exceed that of regional services by a factor of 8.

The Bundespost, the only one really to know, still keeps mum. Eric Danke, head of the teletext department in the Federal Ministry for Post and Telecommunications, put off inquiries by saying "the board of directors will discuss the matter in March." This restraint by the yellow giant differs significantly from its readiness to cooperate in teletex trials. Various study groups have considered all relevant questions.

Obviously the Bundespost is carrying on various planning games and model calculations that fall short of establishing the eventual fees. At least these help us guess the frame of mind of the planners in the ministry. We are certain only of the basis of calculation used by the Bundespost to achieve the desired coverage of costs. The Bundespost expects a million subscribers for teletex by the end of 1986. Roughly half of these will be business recipients of information. It is intended to have 10,000 supraregional suppliers in addition to 70,000 regional suppliers.

The task of setting the fees is extremely complex. Teletex prices will affect not only the expansion of that medium and the structure of its utilization; they will also influence the utilization of other postal services such as mail and data communication. If the Bundespost were to set the fees too high, teletex will not attract enough subscribers and endanger the success of the new service. The medium would then be likely to be afflicted with the English disease: Great Britain, where the supplier fees for the Prestel teletex system are rather high (basic price DM20,000), has managed no more than 20,000 subscribers after 3 years of service. If the Bundespost sets the fees too low, valuable teletex capacities may be vlocked by inflated programs and other services more or less adversely affected.

At the present time fees are not particularly important in the field trials. The recipients of information merely pay DM5 per month for their connection as well as the telephone charges arising. At least the recipients are officially appeased. Federal Minister for Post and Telecommunications Christian Schwarz-Schilling assumes that the price for the so-called connection module "will be between DM5-10 per month." Insiders expect DM7.50.

Data suppliers, on the other hand, do not pay anything now, but their season of grace is almost over. The Munich Fiba-Report combined all speculations and arrived at the following figures: The basic fee for a federation-wide program is to amount to DM4,500-5,000 annually, for a regional program to DM400-600--in other words the fearsome factor 8. Storage fees per page and year are expected to run to DM50-90 federation-wide, to DM6-12 for regional use. Insiders claim that the planning games at the Bundespost definitely operated in these dimensions.

If the fees were to be established at the upper limit of these ranges, teletex would surely not be a cheap medium. Though it would be relatively easy to finance a regional 100-page program at DM1,200-1,700 annual fees, a federation-wide program would cist up to DM15,000--not to mention additional charges for amendments, bulletin services and computer link-ups.

If this price structure is maintained, the outcome cannot possibly predicted even now: Minor suppliers will not have much to report federation-wide. A federation-wide service might at best pay off for firms such as mail order houses that use teletex as a selling tool to increase turnover. All others will confine themselves to a regional offer, especially because their data may be tapped from other regions anyway. Users will be able to get hold of any page not stored in their region by consulting the teletex center in Ulm. Admittedly they will have to pay a special transmission fee.

An analysis of the first Bundespost model calculations has shown that, in general, the fixed portions of the fees are extremely high. An average of 80 percent of total charges is accounted for by basic and storage fees. The consequence: Only those will use the new medium, who are certain of major rationalization benefits or a large volume of turnover. Anyone still needing to explore the possibilities, will be deterred. No doubt such a structure would most likely obstruct the expansion of teletex.

The Bundespost's fee policy will become a very ticklish affair in the period of transition between field trials and federation-wide service. Though the starting gun is to be fired in September, on the occasion of the Radio Show, the network of teletex exchanges is to be only gradually expanded. Regionalization is not expected until the end of 1984, so that really useful service is unlikely to begin before 1985. The suppliers are therefore calling for lower introductory fees that might later be raised gradually.

It is now taken for granted that the Bundespost will yield to this claim, so that the test stage of the medium will be extended from the aspect of charges. Startled by the violent reaction of many suppliers, the planners in the ministry are continuing with their calculations. The latest version of the fee structure shows a

downward revision of teletex prices, including the infamous facor 8. Regional suppliers will have to pay much less than DM100 for a 50-page program, including all storage, basic and connection fees. However, not until detailed figures are available will it be possible to estimate whether the revisions are sufficient to ensure the success of teletex. Not all suppliers are likely to be satisfied. The various interests differ too sharply--for example of publishing houses (see also page 24), press or business firms.

Teletex Suppliers Against Special Law

Teletex users have expressed considerable concern about the state contract on teletex to be finalized by the minister presidents at their media conference in early February (see WIRTSCHAFTSWOCHE No 47/1982). The Teletex Suppliers Federation complains that the draft exceeds that "which seems in need of regulation, based on earlier experiences and discernible trends." And the German Industrial and Trade Association even fears that the contract in its present form "will turn into an overwhelming obstacle to innovation."

The suppliers' complaint about the state contract is directed primarily at the fact that it removes teletex from the total complex of textual and data communications and provides for a kind of special law. They are convinced that existing laws are quite adequate to deal with most of the issues involved. Constitutional objections are raised regarding the proposal that the teletex communication process is to be supervised by special agencies, while a similar proposal for the press was rejected.

The special law complained of has definite economic consequences. Data protection (article 9), for instance, stipulates that no customer card index may be kept for teletex contacts. Moreover, banks or mail order firms must keep two accounts, depending whether transactions are carried out by conventional means or by teletex.

Suppliers consider superfluous the specific duty to indicate advertising (article 8), because legislation n ow in effect in connection with the law against unfair competition in any case calls for the indication of advertising.

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CSO: 5500/2607

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